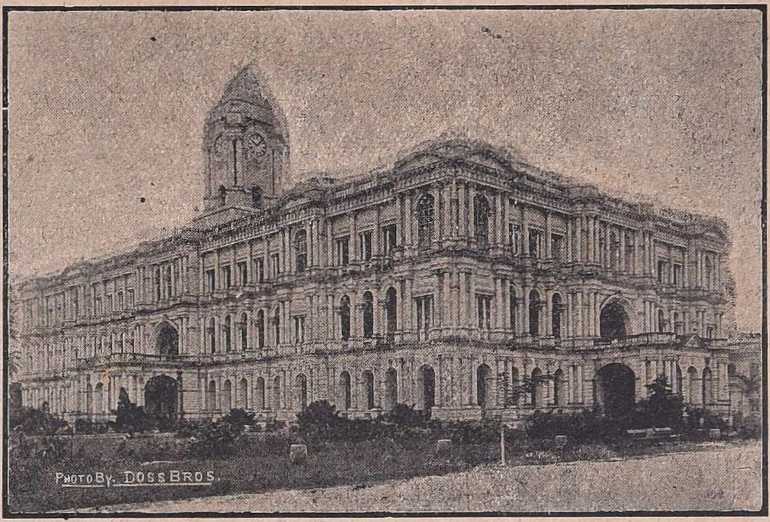
CORPORATION OF MADRAS



(RIPON BUILDINGS)

ANNUAL REPORT

OF THE

Health Officer
of the City of Madras

FOR THE YEAR

1919

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MADRAS TOWN

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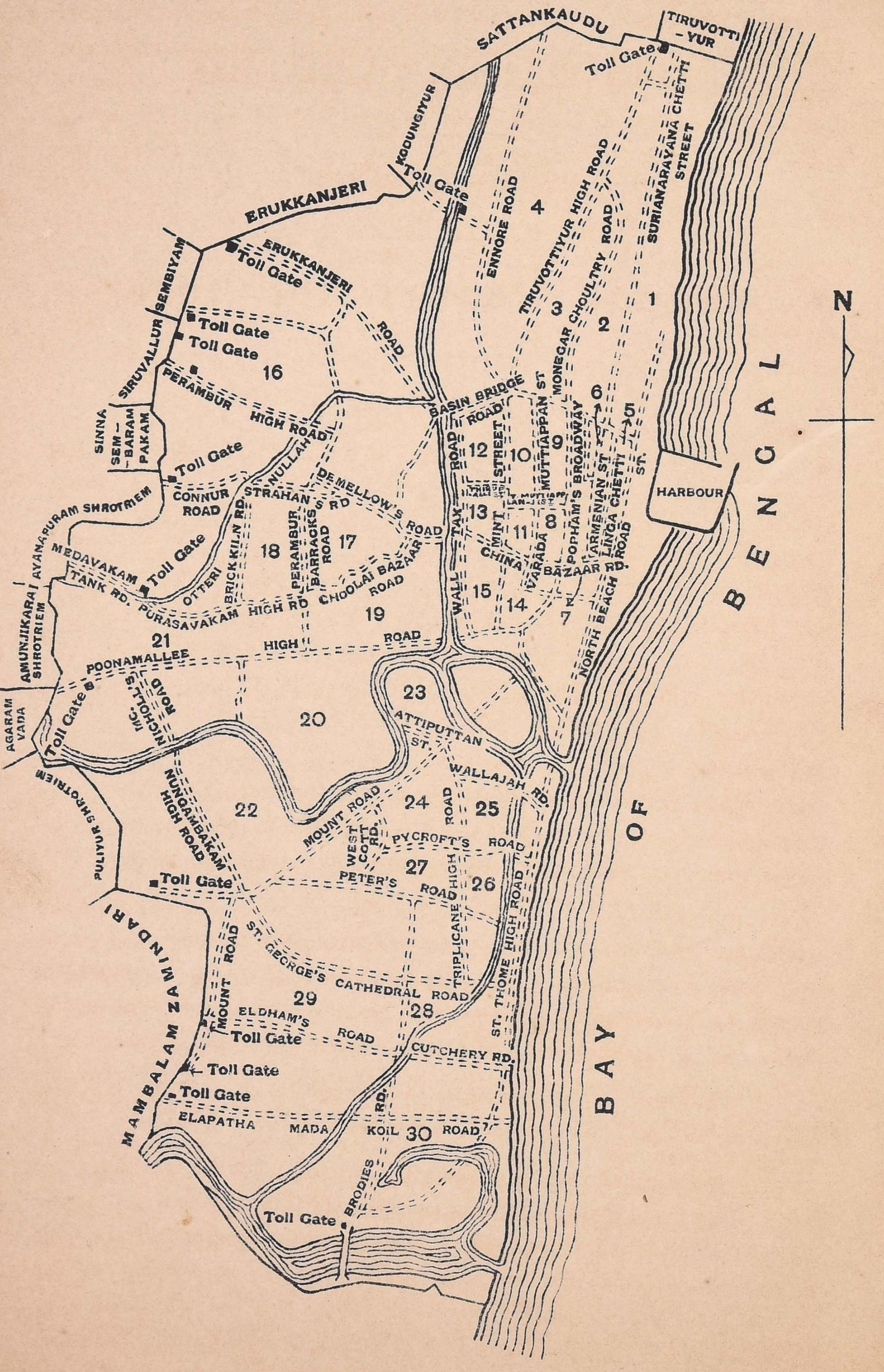

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1920

CORPORATION OF MADRAS

HEALTH DEPARTMENT

Annual Report for 1919.

INTRODUCTION.

Any report by a Medical Officer of Health should attempt to indicate the development and growth of the Public Health Department and the results accruing as they affect the health, happiness and life of the people before it deals with what he has to propose to attain the ideal. From this point of view the writer cannot point to marked advance in any particular direction, save that, during the year under review, thanks to the sympathy of H. E. Lady Willingdon, some progress was made towards the establishment of Child Welfare Work on a sounder basis. A third Child Welfare Centre was started at Purasawalkam while those at Tondiarpet and Triplicane are extending their operations. The work was somewhat hampered for want of suitable Lady Doctors to assist Dr. L. Vira Singh, Lady Superintendent, one doctor whose services had been secured leaving the Corporation for a post at the Maternity Hospital. Within the last few days we secured the services of a Lady Apothecary and a Lady Sub-Assistant Surgeon.

To the duties of the Health Officer have been added the control and supervision of Corporation dispensaries scattered over the City which before April 1919, were vested in the District Surgeons of the City. Three Malaria dispensaries were expanded into general out-patient ones, and located one at Egmore, one at Triplicane, and a third in the western part of George Town.

The Laboratory building commenced towards the close of 1919 is almost completed, but has to await equipment before actual work can be started.

The year under review opened with ominous possibilities of sickness and death. Plague which had broken out in December 1918, appeared and spread slowly in part of Triplicane, while Cholera raged in the northern end of the City. By about the end of January, Cholera had assumed epidemic proportions. In fact the disease was declared epidemic between 5th January 1919 and 15th March 1919. Plague subsided by the end of March 1919. The last case was reported on 3rd March

1919 and the City was declared free from Plague on 20th May 1919. Apprehension of a recrudescence of Plague in the following cold weather luckily proved groundless. About the end of June a sharp outbreak of Influenza started, which, thanks to the co-operation and support from the Medical Practitioners of the City, was promptly dealt with. A number of provisional hospitals were opened and a large number of patients were received and attended to. The year ended with a mortality rate of 52·4 and a birth rate of 36·5. Although these figures are lower than the figures for 1918 (viz. 60·3 and 38·4), they are still a clear indication that the health of the City is far from satisfactory. The conditions noticed in my report for 1918 are still existent save that, except incidental outbreaks already noted, the city has been free from epidemics. The difficulties under which the people of the city get their foodsupply continued throughout the year, and consequently the prices of even the bare necessities of life were maintained at a high level.

That economic conditions exert a potent influence upon the birth and death rates of a population is beyond all doubt. The fundamental check to increase of population is the limit imposed by the available food supply. Supplies of food may exist and still be beyond the purchasing power of many members of the population. Either the standard of living must fall or the population must decrease; and in a community whose standard of living is already little above bare subsistence, the inevitable result is a decline in numbers attested by a low birth-rate and high death-rate.

The excessive mortality accompanying the diminution of the means of support though not caused by actual starvation is brought about by disease. The working of this factor so easily perceived when people are dying of starvation, is often overlooked when a population is decimated by disease.

To the prevailing economic stress are added the difficulties and discomforts caused by a series of labour troubles ending in frequent strikes. Both capital and labour suffer thereby, the latter more than the former. The inevitable rise in wages immediately affects the man whose monthly income does not show a corresponding rise. The striker feels satisfied that his demands have been met, but he forgets that his employer must necessarily put up the prices of his ware to counterbalance enhanced expenditure in wages. The Corporation by itself has not suffered in this manner till recently. There were no strikes of its workmen during the year under review. The recent demand of the conservancy coolies for a small rise in their emolument was promptly acceded to.

27,187 persons died during the year under review. The returns under Influenza alone account for 1303 deaths; but for the formation of the accurate

idea of the effects of this disease we have to take into account mortality figures under Fevers and Respiratory diseases which were 2,007 and 5,148 against a four years' average of 1851 and 4539.

Of all the problems with which the city is faced, the one that calls for the closest attention is that of housing accommodation for the working classes. At present the public mind is agitating over the question of rents and existing accommodation, while Government are working at the ways and means of town expansion. Every grade of house may be found in Madras from the poorest hut to the mansion standing in its own park. The demand for accommodation is so great that every roofed building, no matter what state it may be in, is occupied. Allegations are freely made of land grabbing on the part of the rich, of oppression of the middle class by landlords; nor are the larger employers of labour, with some notable exceptions, especially considerate in this respect towards their employees.

What is lacking in this city is the good small house, and the small bungalow with a limited open space all round. There is, at present, a tendency towards parcelling out large compounds; and numerous small bungalows are built with no attention to disposal of sewage, the result being that the sewage of these houses stagnates about them. The kutcha villages included in Madras will remain for several years to come, if they are drained and, if their internal congestion improved away, no great harm can come of them, though as part of a large city, they strike the eye as incongruous.

To my mind the problem seems to be susceptible of solution could the Government or the Corporation acquire at once large tracts of open country existing within and about the city and sell plots at a moderate price subject to the condition that the purchaser should build a house of approved design within a specific period. The Government, Corporation and large employers of labour could afford to advance small sums of money to their servants towards this end, repayments being made in small instalments spread over a couple of years. This I believe was the basis of extension in Bangalore City.

A small survey was made during the year of the nature and extent of house accommodation available in different parts of the city. It was found that out of 6,022 families examined only 43 per cent lived in apartments consisting of 2 rooms and more, while 57 per cent lived in single room tenements. The average number of a family was 5. The effect on the one room tenant is always obvious. By overcrowding he is robbed of oxygen. Wanting facilities for washing he keeps himself unclean. Obviously poor he exists in semi-starvation. The clamour and nervous stress incident to over aggregation rob him of sleep. Un-aired, underfed, underslept, underclad, and overstimulated, he lives. The one-room house is directly the cause

and obviously the portent of a high deathrate, and disease rate. The one-roomed population moves in a vicious circle ; the one-roomed house attracts the poor inefficient man, and adds to the inherited inefficiency of his children.

A Corporation which has inaugurated successfully a scheme for infant welfare should give thought to the welfare of its grown-up children. One cannot sufficiently emphasise the urgent need there is for the inspection of school children. In a reference that was made to me on the subject of establishing open air schools for Tubercular children in the City of Madras, I said that such separation of children could not be made without a preliminary examination of all children before admission to public schools, such examination being conducted by a special school Medical Officer appointed for the purpose. It seemed to me premature to think of a special open-air school, before the introduction of such general "Discipline" as the medical inspection of school children. For one thing it will be hard to convince a parent here and there that his child is tubercular, still harder to induce him to send his child to a "special school" and in considering the utility of a special school one is apt to forget that the time spent by a child at school is very short, and that the larger part of the 24 hours is perhaps spent by him in the squalid, overcrowded slums for which the poorer classes are condemned.

If education should be compulsory, so also should be medical inspection of school children. The obligation on a public authority of compulsory education carries with it the further obligation on the parent or guardian to keep the children in a fit state of health for school attendance. The parent's duty is to see that the body of the child is maintained in a cleanly state; the master's to attend to the moral and mental equipment of such child.

Cleanliness of clothing and body is undoubtedly relevant to general efficiency. A dirty young child means a dirty mother. A dirty older child means a bad history, and a bad environment. Dirty clothing means parental incapacity and ignorance.

Consequent upon the introduction from the 1st October 1919 of the new Municipal Act, departmental working was reorganised. The city has been divided into three ranges, the Assistant Health Officer of each range being in immediate supervision and charge of all work therein *viz*, sanitation, conservancy, etc.

Each Municipal division constitutes a unit except Nungumbakkam, and Perambur, each of these having two ranges on account of their extent being considered as two units. Each unit is presided over by a Sanitary Inspector who does both sanitary and conservancy work, so that there are 32 Sanitary Inspectors at present for the city in place of the former 40 Sanitary Inspectors and Conservancy Overseers. One cattle depot was abolished and amalgamated with the

rest leaving 6 in all at present. The work of medical registration and vaccination which, prior to October 1919, was done by two separate sets of officials, has been combined and there are now 15 depots in the city where births and deaths are registered and vaccination is performed by a duly licensed medical practitioner.

It would be advisable to constitute a small Veterinary Department as a part of the Health Organisation, its duties being summarised as follows :—

1. Daily attendance at the Slaughter Houses during the hours of slaughter for the systematic inspection of all animals killed for food.

2. Inspection of all shops, warehouses, factories and markets where livestock or meat is exposed for sale or sold for human food.

3. Necessary control over cattle diseases and assistance in detecting infectious diseases spread through the medium of milk-supply.

4. Inspection and greater control of cattle sheds, byres, cowsheds, horse-stables, and examination of every animal housed therein at least once a month.

5. Advising the Health Officer in the purchase of conservancy cattle, and being in direct charge of cattle depots.

Such a department will enable the Sanitary Inspectors to devote greater attention to detection and prevention of epidemic diseases among men and to show more and steadier work in the matter of domestic sanitation, supervision of offensive trades, etc., At present they perhaps try to do everything but accomplish little or nothing. Their difficulties, one fears, are enhanced owing to the method in which municipal cases launched by them are dealt with. These prosecutions have become a by-word for ineffective Municipal zulum; the fines inflicted being wholly incommensurate with the nature of the offences. Instances by the score could be quoted. A house condemned three and a half years ago still continues to be occupied and cattleyards found unfit in 1918 still remain as they were. Each prosecution needs four to six months for getting a conviction, and as the fine ordinarily varies from annas 4 to a rupee, the offender naturally prefers to pay the fine and continue in his misdeeds. What is wanted is a sense of public health in the trying of public health cases. The Health Code should be looked upon otherwise than as a legal code; it is a moral code, a code of conduct. Almost the last thing needed in connection with public health problems is the legal mind. A man who offends against caste rules is summarily excommunicated by a code of ethics peculiar to that caste, but one who offends against a whole community's well-being goes scotfree on a technicality.

I am forced to write on this subject with some vehemence, under a feeling of our utter helplessness in dealing with those who continually offend against the ordinary laws of health. A man can with impunity keep in an overcrowded house with four or five tenants a virulent case of Small-pox. The law seems patient of diverse interpretation and the punishments inflicted to lower courts are sometimes set aside on appeal to a higher court.

Apparently a case of infection can legally be removed from one house to another in a non-infected locality, and so far as we are concerned there is no hope of legal preventive. Take again the case of cowhouses. Numbers of them exist below human dwellings, many of them filthy and crowded. As a result cows and human beings are continually subjected to evils of each others' environment. Progress in improving existing conditions has been very slow, fresh applications are pouring in for perpetuating the closer intermingling of men and animals ; and one constantly hears the dairyman bewailing his bad luck, and talking of ruin at the prospect of removal from overcrowded areas.

The care of the public health is the first and the prime duty of all Municipal Administration. Reasonable purity of air, water and food and freedom from communicable diseases have from ancient times been the great sanitary desiderata of the human race. To these we may add a reasonable amount of accommodation to live in. They are evidently the fundamental requirements in any stage of society. All moneys spent from the public exchequer are intended to supply these minimum requirements for healthful existence of the very people from whom these very moneys are collected. For obvious reasons progress has been necessarily slow and it cannot be otherwise in an administration whose financial needs are often met with the inexorable reply 'no balances' or 'no funds'. It is particularly unfortunate that outlays on schemes for improvement of public health are not immediately returned in the form of rupees, annas and pies that strike the imagination but in a slow and unrecognised lowering of the death-rate. It is little wonder that the health administration of the City, as of others, is meeting with constant criticism, and those who criticise results should not omit consideration of the means existing to achieve them.

Apart from the question of funds, our progress is often hampered for want of speedy co-operation from within and without. Of the latter I have spoken at considerable length in my previous reports. The Health Department cannot achieve everything by itself. It has to depend largely upon co-operation from other departments. It has to bear all the blame attached to any public or a private nuisance, to an epidemic of Influenza or Plague, to a deficient water supply, to broken gullies, broken sewers and overflowing manholes, outpouring syphons and

drainless houses. For all these and for many other sins of commission and omission the Health Department has to answer although it has little power to control them all. Success in public health work is only attainable by interdepartmental co-operation governed by principles of sanitary science, and not by unalterable rules of practice—specific rules and regulations never accurately fit in all cases.

I would be failing in my duty if I did not express my feelings of gratitude to all the Medical Practitioners of the City, both private and in Government service for the largehearted manner with which they rendered our work easy by their guidance and advice during times of epidemic. I am also thankful to the entire staff of the Health Department, both indoor and out-door for the promptness with which they carried out all instructions, thus contributing to the success in combating epidemics.

K. RAGHAVENDRA RAO.
Health Officer.

STATISTICS FOR 1919.

1. Area of the City ... ... 27·6 sq. miles.

2. Census of 1911 :—

    Population ... ... 5,18,600.

    Average density ... ... 29·4 per acre.

    Density of the old 7th, 8th and 9th Divisions... 132·6 per acre.

    Inhabited houses 59,595

    Number of persons per house ... ... 8·6

3. Total births registered in 1919, excluding still births 18,936

    Still-births 837

    Illegitimate births 667

    Birth-rate ... ... 36·5

4. Total deaths registered in 1919 27,187

    Death rate ... ... 52·4

    Infantile mortality 6230

    Infantile mortality rate ... ... 329·0

5. Estimated population for the middle of the year 1919 5,26,344

6. Death-rate from Infectious diseases on census population ... ... 24·4

7. Death-rate on estimated population ... ... 51·7

VITAL STATISTICS.

Table A on page 94 shows the birth and death statistics for 12 years since 1908.

The climatic conditions of the City during the year 1919 were on the whole normal. The total rainfall during the year was 50·78 against 75·00 in 1918 and 51·06 in 1917.

Climate.

Table B on page 95 shows the quarterly rainfall in the City since 1914. 10 Medical Registrars with 20 Conicopillais were in charge of registration of births and deaths in the city up to 30th September 1919 and the number was increased to 15 and 31 respectively owing to the distribution of the City into 15 Registration Districts from 1st October 1919.

Births.

The number of births registered during the year 1919 exclusive of still births was 18,936 being 961 less than in the previous year. The ratio calculated on the census population of 1911 was 36·5 per mille against 38·4 in 1918 and 44·9 in 1917. The birth-rate calculated on the population estimated in the middle of the year 1919 was 36·0.

Birth-rate by races.

Table C on page 95 shows birth rate by races and Table D on page 96 shows that amongst principal sub-divisions of Hindu community for two years. The Mahomedan community returned the highest birth rate of 37·8, and the European Community the lowest.

Births by Months.

Table E. on page 96 shows the number of births in each month during 1918 and 1919. The largest number of births was recorded in October and next in November and September.

Births by Sex.

Out of 18,936 births recorded during the year, the number of males was 9,750 and females 9,186.

Illegitimate Births.

667 illegitimate births were registered during the year against 817 in 1918 and 995 in 1917.

Still-Births.

There were 837 still-births during 1919 against 834 in 1918 and 1,077 in 1917.

Deaths.

The number of deaths registered during the year exclusive of still-births was 27,187 against 31,262 in the previous year. The average of the previous four years was 21,935.

The ratio of deaths calculated on the census population of 1911 was 52·4 per mille against 60·3 in the previous year and 38·4 in 1917 and the mean ratio for the previous four years was 42·3. The death rate calculated on estimated population was 51·7.

Sex. Deaths among males numbered 13,502 and among females 13,685, the proportion being 99 males to every 100 females.

Class. The number of deaths registered among Europeans was 73, Anglo-Indians 365, Indian Christians 1,073, Hindus 22,414, Mahomedans 3,253 and others 9, the ratios being 17·4, 35·3, 39·3, 53·9, 55·0 and 5·1, respectively.

Age. Mortality among infants under one year of age was as usual the highest *viz.*, 6,230; next comes 4,599 deaths among adults of 60 years and upwards. Next comes age group 1 to 5 years with 4,595 deaths. There is a sudden drop thereafter in the age periods 20 to 30, 30 to 40, 40 to 50 and 50 to 60, with 2,566, 2149, 1,849 and 1,659 deaths respectively. Then comes the age period 5 to 10 with 1,551 deaths, then the age period 15 to 20 with 1,036 and lastly the age period 10 to 15 with 953 deaths.

From Table G on page 98 it will be seen that as many as 2237 or 35·9 per cent of the total number of infants died before they attained the age of one month. Of these 2,237, as many as 1,467 or 65·58 per cent were cases of premature birth and debility *i.e.*, 23·5 per cent of the total infants under one year died from this cause before they attained the age of one month

Child Welfare Work. A full report on the child welfare work for one year ending 30th September 1919 was submitted to Government and the same will be found on pages 32 to 57.

Causes of Mortality—Infectious Diseases:

Malaria. Malaria caused 2·7 per cent. of the total deaths as against 2·8 per cent. for 1918 and 4·3 per cent. for 1917 or expressed in ratio per mille 1·2, 1·7 and 1·7 respectively. Annual form No. X on page 71 shows that 736 persons died of this cause against 881 in 1918.

Enteric Fever. There were 52 deaths from Enteric fever during the year giving a ratio of 0·1 per mille against 0·09 in the preceeding two years. The mean ratio for the previous 4 years is 0·1. The number of deaths from this disease returned for 12 years is given in the Table below.

1908	1909	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919
30	41	42	52	42	51	66	75	49	47	45	52

Kala-azar. 41 deaths were registered from this cause, the corresponding number in 1918 and 1917 being 19 and 23 respectively.

Cholera. 998 cases were reported during the year of which 642 or 64·3 per cent. proved fatal, against 856 attacks and 503 deaths or 62·6 per cent. in the previous year, the ratio being 1·2 per mille as against 1·0 per mille in 1918. The mean ratio for the previous four years is 0·3. Cholera was declared epidemic between 5th January 1919 and 15th March 1919.

Incidence :—

Cholera by Sex and Age.

1919.	Under 1 year of age		1 to 4.		5 to 9.		10 to 14.		15 to 19.		20 to 29		30 to 39.		40 to 49.		50 to 59		60 and upwards		Total		Grand total males and females for 1919
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
Cholera ...	1	1	25	29	22	23	22	18	15	18	51	96	75	64	52	41	28	28	19	14	310	332	642

Small-pox. Small-pox was prevalent in the City throughout the year in a sporadic form. The number of attacks during the year was 1227, of which 611 or 49·8 per cent proved fatal. The annual death rate was 1·2 per mille against 0·5 per mille in 1918. The mean ratio for the previous four years was 0·5. Suitable preventive measures were taken and the disease was greatly kept under control.

Measles. There were 108 deaths during the year. The percentage calculated on the total deaths is 0·4 per cent. or 0·2 per mille. The mean average for the previous 4 years is 0·3.

Influenza. Early in July 1919 Influenza showed signs of recrudescence for the third time. For the week ending 5th July, 22 deaths were registered under Influenza. About the last week of that month the disease appeared to be spreading into all parts of the City. The disease had reached its acme during the early part of August and for the week ending 10th August 1919 there were 120 deaths under Influenza. Thereafter the disease showed a tendency to decline and by the end of September 1919, the disease had almost subsided. The total number of deaths registered under Influenza was 1,303 for the year or 109·3 per mille against 3,417 in 1918.

A large number of cases was reported by physicians in the public hospitals and by private medical practitioners and it seemed imminent that proper precautionary measures should be taken to counteract its ravages. A small note on

Influenza was published in the local newspapers to serve as a warning to the public. A meeting of the medical men of Madras was convened by me under the presidency of Lt.-Col. C. Donovan, I.M.S. on the 15th July 1919. The meeting was well represented by over 150 Medical practitioners including Government servants. The general trend of opinion was to secure good houses in parts badly affected with Influenza with a view to house patients instead of removing them to far off hospitals and naming them as "Influenza Homes" in order to remove the prejudice which people had towards going to hospitals. A committee was nominated with Lieutenant-Col. C. Donovan, I. M. S., as Chairman and the Health Officer as the convener to concert measures to combat the epidemic of Influenza. The committee met on 21st July 1919 and made the following recommendations :—

I. (*a*) to erect temporary structures in different localities to accommodate the sick,

(*b*) to appeal to medical men in the city soliciting their co-operation and co-ordination to go round and locate cases of Influenza and endeavour to induce their patients to resort to Influenza Homes.

(*c*) to procure and keep in readiness certain drugs specified by them for use at different centres.

II. As regards prophylaxis the period to which the immunity conferred by Prophylactic vaccination was not determined with any certainity but it was considered that it would mitigate or avoid all Influenza complications.

III. As to curative measures, no known measures of considerable utility were suggested and an inhalation mixture was recommended. An appeal to medical men in the city was made on 24th July 1919 to persuade people suffering from the disease to resort to the Influenza Homes where suitable diet, medicines and nursing were accorded free. The recommendations of the Committee were faithfully carried out and the Corporation was kind enough to make an emergent grant of Rs. 15,000 for relief operations. Nine Influenza Homes were opened at different centres in the City. These were properly staffed and suitable arrangements were made for giving all possible comforts to the patients. I am glad to testify to the fact that these houses were popular and in addition a few kindly medical practitioners sent their patients to the homes; and instructions given by these medical practitioners were also carried out by the staff. Influenza posters in English and in the vernacular languages were put up throughout the city for the information of the general public. By the end of July all the above arrangements were completed for taking Influenza cases and on 31st July 1919, Government was addressed to notify Influenza as a dangerous disease under Section 3 (7) (*b*) of

the Madras City Municipal Act, III of 1904 and the disease was accordingly notified by them in G.O. No. 1208 M. (Press), dated 13th August 1919. The number of cases received and treated in all the Influenza Homes was 614 of which 49 proved fatal and the cost incurred for combating the disease was Rs. 18,981–7–8.

Plague.

A detailed report on the outbreak of Plague in the City during the latter part of 1918 and in the beginning of 1919 has been furnished on pages 11 to 15 of the Health Report for 1918. There were in all 15 attacks and 14 deaths of Plague during the year.

The administration of Plague work was restricted mainly to (1) rat destruction and (2) Administration of the Port Health Officer.

The number of rats sent to the Incinerator, Bombay Bacteriological Laboratory and Plague Prevention Inquiry, Poona, during the year was 1,61,194 against 159,808 in the previous year. Thus the total number of rats destroyed from the beginning of the operations came up to 25,76,501 ; of these 20,246 were caught alive as against 5,311 in the previous year. Out of 20,246 caught alive, 2,106 were sent to Bacteriological Laboratory, Bombay, and to the Plague Prevention Inquiry, Poona, for examination.

The Port Health Officer reports as follows :—

326 incoming vessels from Plague infected areas were examined during the year with 31,863 crew and 73,574 passengers against 173 vessels with 19946 crew and 77,353 passengers of the previous year. The increase in the number of vessels and passengers was due to the cessation of war.

2. The system of issuing Plague notification papers was abolished about the middle of 1918, owing to a revision of Plague Regulations. The disinfection of the bedding and clothing of people arriving from plague infected areas by third class and of people embarking for ports out of India is, however, still continued. The disinfecting shed is in charge of a Sub-Assistant Surgeon and a nurse is employed for examining female passengers arriving here or embarking from here.

A Clayton's apparatus is maintained and was made use of six times during the year.

Epidemics

3. 21 cases of measles with 20 contacts, 7 cases of small-pox, 2 cases of chickenpox with one contact, 29 cases of influenza with 57 contacts and 1 case of mumps were found amongst the passengers and crew in steamers that entered the harbour during the year 1919. On 28th May 1919 there was a general outbreak of cholera on board the ship S. S. ' Bharatha ' bound for Negapatam with emigrant coolies. The attacks and contacls

were taken and as there was not sufficient accommodation for keeping the coolies under observation, the steamer was sent back to Madras; while she reached Madras there were 2 dead bodies, 17 attacks and 28 contacts which were immediately sent to Infectious Diseases Hospital, Royapuram for treatment and segregation. The remaining were entrained to Avadi camp after disinfection of their bedding and clothing. On 3rd July 1919 there was a case of cholera amongst the emigrant coolies on S. S. 'Tara' while in the harbour. The person died on board the ship, the body was removed and cremated and the rest of the coolies were despatched to Avadi camp for observation after the usual disinfection of their bedding and clothing. The steamer was thoroughly disinfected. Water in the tanks on board the ship was analysed and after steamer was thoroughly fumigated, a clean bill of health was granted. Again on 5th July 1919 there were three attacks and two contacts amongst the emigrant coolies on board the S. S. 'Fultala' which was returned from Negapatam. The necessary sanitary measures were adopted.

Diarrhœa and Dysentery.

5835 deaths were registered from these causes. This represents a death rate of 11·3 per mille on population against 10·7 in 1918 and 7·9 in 1917 or 21·5 per cent. to the total deaths and 17·7 per cent in 1918 and 20·7 per cent. in 1917. The largest number of deaths were recorded in January, next in August, February and December. The mean ratio for the previous 4 years was 8·5.

General Respiratory Diseases excluding Tubercle of the Lung.

3839 deaths were recorded from this cause or 1679 deaths less than the previous year. The ratio is 7·4 per mille against 10·6 in 1918 and 6·4 in 1917. The mean ratio for the previous four years was 6·7.

Tuberculosis including Tubercle of the Lung.

1309 deaths were registered under this head, a decrease of 179 deaths to the previous year. The ratio is 2·5 per mille.

Diseases of the Nervous System.

3382 or 12·4 per cent. to the total deaths were registered under the heading against 4,560 or 14·6 per cent. in the previous year Of these, 1,419 deaths were recorded among infants under one year of age against 1,574 in the previous year, who were reported to have died of "convulsions."

Certified deaths.

The number of deaths certified by qualified medical men was 3,406 or 12·53 per cent of the total number of deaths in the city. Of these 1,152 or 4·2 per cent were certified by private medical practitioners and 2,254 or 8·3 per cent by public hospitals.

Extracts from Birth and death Registers.

310 applications were received during the year for extracts of entries from the birth registers and 327 from the death registers. Out of these, the number of birth extracts granted was 203 and of

death extracts 333. In 71 cases extracts were not granted as the parties failed to pay the fees. In 93 cases entries could not be found and the parties were informed so. The fees collected during the year for such extracts amounted to Rs. 986.

The number of Corporation burial and burning grounds remained the same as in the previous year and continued to be in charge of the Sanitary Inspectors of the respective divisions.

During the year 2,126 bodies were buried and 5,927 were burnt. Lands for the erection of tombs were sold to 176 applicants and the amount realised by such sale was Rs. 1,175-10-0.

The two infectious diseases hospitals in the City, viz., one at Krishnampet and the other at Old Jail Street, Royapuram which were under the supervision of the Surgeons IV and I Districts respectively were brought under the control of the Health Officer from 1st April 1919. The total cost of maintenance of these institutions amounted to Rs. 30,368-5-0 as against Rs. 18,782-13-4 in the previous year. Detailed report on the working of these institutions will be found on pages 110 to 114 (Appendix B.)

SANITATION.

Administration.

Prior to 1st October 1919, there were twenty sanitary inspectors and twenty conservancy overseers each in charge of a division and in addition to this there were eight superintendents in charge of cattle depots. Dr. C. Singaravelu Mudaliar, the Senior Assistant Health Officer was in sole charge of the conservancy of the city. The other two Assistant Health Officers were in charge of sanitation, vaccination, registration of births and deaths, etc. From 1st October 1919 the Madras City Municipal Act, 1919 came into force and the City was divided into thirty divisions; 16th and 22nd divisions being bigger in extent than others were each sub-divided into two divisions for purposes of health administration. There are thus 30 divisions divided into 32 ranges each range in charge of a Sanitary Inspector whose duty is to look after both sanitation and conservancy. The City was also divided, into three ranges-1 to 11 divisions comprising north, 12 to 21 divisions centre and 22 to 30 divisions south, ranges and each range has been placed in charge of an Assistant Health Officer who is to be responsible for both conservancy and sanitation so far as they relate to his range.

Dr. C. Singaravelu Mudaliar, Senior Assistant Health Officer, was absent on privilege leave from the 11th November 1918 to 2nd January 1919 both days inclusive owing to ill-health, and Mr. S. Voyvodeck Malaria Supervisor, was in charge of the conservancy of the city during his absence.

Dr. G. Raman Pillai, Second Assistant Health Officer, was on combined privilege leave and leave on medical certificate from 3rd February 1919 to 2nd January 1920 both days inclusive owing to ill health—privilege leave for 1 month and 8 days and leave on medical certificate for the remaining period. Dr. H. M. Strickland was appointed to act for him from 7th February 1919. He continued to hold office till the afternoon of 19th September 1919 when he resigned his appointment and left the Corporation service. Dr. P. Sadasivan was appointed to act in the vacancy from 20th October 1919. Dr. S. Isaac Third Assistant Health Officer was absent on privilege leave for two months from 4th January 1919 and for one month from 4th September 1919. On the former occasion Dr. C. Singaravelu Mudaliar was asked to look after his work in the north range and Mr. Voyvodeck, Malaria Supervisor was in charge of conservancy of the city from 4th to 31st January 1919, and M. R. Ry. U. Shadagopam Naidu, Sanitary Inspector, was in charge of the conservancy during the rest of the period.

The drainage of the following areas was completed during the year under review :—

(1) Velayuthan lane, Meerale lane and cross lane in Muthialpet (by constructing a 6″ masonry drain).

(2) Kutti Thumberan Street (by constructing a 6″ open masonry drain and connecting it with the malaria drain).

(3) Muthukrishnan Street (laying 6″ sewer with house connection and connecting the same with the sewer in Muthu Gramany Street).

(4) Oosaram Street junction of Velayutha Chetty Street, Pudupet (laying a 6″ sewer with house connections and providing manholes).

(5) Narayana Dasari Street at the top end of Egmore Parcherri (laying 6″ sewers and providing manholes).

(6) Sannadhi Street, Mylapore (laying 6″ sewers and providing manholes)

(7) Thiruvengada Naicken Street, Palmyrakuppam, Royapuram (constructing storm water separator).

(8) Thackers Street (making house connections to sewers).

(9) Rosary Church lane (extending the 6″ sewer from the junction of Muthukrishnan Street, Sullivan's Road gardens).

(10) Perambur Chucklepalayam (constructing side drains).

(11) Narayana Naick lane, (extending sewers and sewer connections).

(12) Tholasinga Perumal Koil Street, paralel to Alagappa Chetty Street (laying of a new branch sewer in the scavenger lane behind this street, providing syphons and connecting the back yard drains of seven houses in this street with syphons under combined operation at the cost of the owners).

(13) Shurfudin Garden Street (laying of sewer main and drainage connections).

(14) Thanappa Chetty Street, General Samy Naick Street and Oil-monger Street (introducing drains).

The following drainage works were under progress during the year :—

(1) Dismantling and reconstructing syphon boxes in Periamet.

(2) Extending sewer in Aslambi Street and connecting it with the head manhole in Angamuthu Naick Street including house connections.

(3) Extending sewer in Batcha Garden 2nd lane in Mylapore including house connections.

(4) Making drain connections to premises known as 'Pasupathi Agrahadian' Mandavalli, Mylapore.

(5) Providing 4" cast iron pipe for the cross drains in Ellakandappan Street and Singannan Street

The following general works were carried out druing the year :—

(1) Raising the sloping mounds to the platform of the Vasapmode dumping ground on three sides of it to facilitate the unloading of rubbish carts (9th Division).

(2) Opening of a free dispensary near the Janda Post Office, Triplicane (25th Division).

(3) Construction of Influenza Homes in South Beach Road consequent on the outbreak of Influenza from July to October 1919 and the treatment of cases therein.

(4) Reconstruction of huts in lines on the northern wing of Mattam Kuppam after the outbreak of plague (26th Division).

Housing and relief of congestion :—

The newly opened roads in Suparigunta were widened thus relieving the congestion of this locality and side drains were constructed during the year.

Public latrine:—Flush-out latrines for men and women were constructed and completed in the following places :—

(1) Ebramjee Sahib Street.

(2) Corporation Workshops.

(3) Law College Pumping Station near Broadway.

(4) Venkatrangam Pillai Street.

(5) Ammen Koil Street.

Bathing fountains :—(1) A bathing fountain with six taps was erected in Mistura Begumpetta.

(2) Improvements to the existing bathing fountain at Badriah Garden Street were under progress at the end of the year.

Cattle yards.—The model cattle yard in the Basin Road which was opened to the public in January 1917 worked well during the year under review. 221 milch cattle (including cows and she-baffaloes) were admitted during the year. 16 head of cattle were taken away or sold leaving 205 at the close of the calendar year. The income from this cattle yard was Rs. 408-0-0.

There were 512 licensed private cattle yards in the city during the year, and a large number of these are situated in congested localities, especially in parts of Triplicane and Chintadripet. It is desirable in the interest of public health to construct cow sheds on the model of the one in Basin Road. But these should preferably be small and sufficient to accommodate about a hundred head of cattle and they should be located in suitably selected plots of ground not far removed from consumers of milk and milk preparations.

In almost all parts of the city a great deal of nuisance is being committed by people using streets for picketting cows and draught bulls and carts after the day's work is over. Unless the Police take severe notice of it, it is not possible to put an end to this practice. The Corporation is however informing the parties who commit this nuisance that licenses for the cattle yards adjacent to which such nuisance is committed will not be granted if the nuisance continues.

Stables.

There were 124 licensed stables. 93 stables were notified under the existing by-laws and 31 were put into proper order.

Cart-stands.

The Elephant Gate cart stand is the only one managed departmentally. The right of collection of rents and fees therefrom was sold in auction for Rs. 10,000 for the official year 1919-20 as against Rs. 8,700 for 1918-19.

There were 15 private cattle stands in the city and sanitary regulations were enforced in as practical a manner as possible.

Leather Godowns.

The Standing Committee at their meeting held on 9th August 1918 resolved that the dwelling houses in residential quarters should not be converted into leather godowns. There were 143 such godowns and it is very desirable that in the interest of public health the whole trade should be removed outside the city limits.

Dye Pots and Paddy boiling houses.

There were 55 licensed yards of the former and 484 of the latter. The dye pots once closed are not allowed to be reopened, especially those in the old 2nd Division.

Brick kilns and lime kilns.

27 brick kilns and 21 lime kilns were licensed during the year. The Government Brick Kilns in Chetput have not yet been removed.

Aerated water factories.

There were 21 ærated water factories licensed during the year.

Bakeries and sweetmeat bazaars.

There were 55 bake houses and 214 sweetmeat bazaars. By-laws regarding these have not yet been framed by the Council under the Madras City Municipal Act, 1919.

Dhobikhana.

During the year under report, the new dhobikhana at Robinson Park was completed. The income from this dhobikhana and the dhobikhana at Chetput was Rs. 203-8-0 and Rs. 1,136-8-0 respectively during the year.

Slaughter-houses.

The number of sheep and goats slaughtered during the year was 4,59,452, the number of cattle 18,715 and the number of pigs 2,344. The motor meat vans for carrying meat from the slaughter houses to the different parts of the city continued to work during the year.

The right of collecting rents and fees for the use of the Corporation slaughter-houses was as usual leased out and the total receipts under all heads including that of delivery of carcases amounted to Rs. 87,675-12-6 for the official year 1919-20. During the year, permission was granted for the slaughter of 1,758 sheep, 3 cows and 6 pigs in private houses on occasions of religious ceremonies and festivals.

Markets (Private and Public).

The Corporation maintains two markets, the Moore and Smith Field Markets. The right of collecting rents and fees from the latter was leased for the year 1919-20 for Rs. 3,500 while the former is managed departmentally. There were 42 private markets in the city. Four of the market owners were prosecuted and convicted for not abiding by the conditions laid down in the licenses granted and six of them were warned.

Food and Drugs.

No improvement in this direction was made during the year. The construction of a Chemical Laboratory to the north of the Ripon Buildings begun at the end of 1919 has almost been completed. The building has to be equipped before actual work is started.

Disinfectants

Large quantities of *Hycol* were used for disinfection of infected houses. *Sanitas Okol* was also used for that purpose.

Lethal Chambers.

There are two Lethal Chambers at which stray dogs are received and after three days' detention, if the dogs are not reclaimed, they are killed by being put into a specially made air tight chamber and suffocated by the vapours of hydrocarbon. 6,390 dogs, 5,848 bitches and 188 pups were received and 556 dogs and 255 bitches reclaimed and 3,236 dogs 3,078 bitches and 187 pups killed during the year.

Dispensaries.

During the year under report, the three malaria dispensaries at Washermanpet, Purasawakkam and Royapuram were converted into general dispensaries-one for Georgetown, one for Egmore and one for Triplicane. The Washermanpet dispensary, the Baliah Naidu dispensary and the Chintadripet dispensary which were under the management of the District Surgeons were taken over under the direct control of the Health Department with effect from 1st April 1919. A report on the working of each of the above six dispensaries will be found in Appendix B.

VACCINATION.

During the period from January 1919 to September 1919, the vaccination staff consisted of 10 vaccinators each in charge of a district, 10 assistant vaccinators and two female vaccinators. In pursuance of the new Municipal Act IV of 1919, the city was divided into 15 vaccination districts from 1st October 1919 each in charge of a Medical Registrar who is a qualified medical practitioner. There were 2 special vaccinators, 2 female vaccinators and 31 assistant vaccinators. The female vaccinators worked in Gosha and Muhammadan quarters. There were 15 Sub-Assistant Surgeons employed as Medical vaccinators in addition to a certified man with vaccination training at King Institute, Guindy. Vaccine lymph for the operation was obtained from King Institute of Preventive Medicine, Guindy.

The total number of vaccinations performed during the year 1919 was 32,231 (20,038 males and 12,193 females), against 32,694 of the previous year The fall in the total number of vaccinations was due to the following causes:—

The birth-rate since 1914 was on the rise till 1917 when it reached its maximum, viz. 44·9 per mille. Since then it has fallen to 38·4 per mille in 1918 and 36·5 per mille in 1919.

The larger number of vaccinations during the latter half of 1917 and the whole of 1918 is in direct proportion with this rise in births in the city. The effects of low birth-rate during 1918 began to operate during the whole of 1918 and thereafter and hence the number of children coming up for vaccination went down to a small extent, corresponding to this falling birth-rate directly affected the number of cases of vaccination performed.

Side by side with the rise in mortality rate since 1917 the infantile mortality rate went up. The highest death-rate among infants was recorded in the year 1918, viz. 355·2 per mille. This should have contributed towards the fall in the number of vaccinations performed in the year following.

In the Health Administration Report for 1917 it was pointed out that a high birth-rate in a particular year had a tendency to result in a high death-rate in that year, because it meant an increased infant population and in Madras nearly one-third of the new born babies died annually. The inevitable (at least at present) disastrous results on infant life were not a little due to the additional strain on living caused by economic conditions during the past three or four years. For

these and similar reasons infantile death rate seems to have reached its acme during 1918 viz., 355·2 and during 1919 it was 329·0 and we feel we are recovering from such calamitous conditions. It is no wonder then that comparatively fewer children came up for vaccination, the number depending upon the total of those that were able to survive vaccinable age.

Finally the year was free from out-break of Small-pox in an epidemic form which generally makes a large addition to total vaccinations on account of re-vaccination of contacts. Of the total 32,231 cases vaccinated, 17,192 cases were primary and 15,039 were revaccinations against 19,151 and 13,543 respectively in 1918.

Of the total operations performed in the city, 31,227 cases were vaccinated by the Corporation staff and 1,004 reported by the Medical Officer in charge of the Penitentiary. Of the former number 17,192 cases were primary vaccinations (19,151 in 1918) and 14,035 were revaccinations (12,452 in 1918). Of the total number of primary vaccinations 13,962 were performed at the depot and 3,230 outside; and of these again 103 were domiciliary vaccinations performed on payment of fees, the remaining being cases performed in infected localities and in slum areas.

Percentage of Success.

The Assistant Health Officers and Medical Vaccinators verified the results of vaccinations performed by them in 16,704 primary cases, of which 12,168 were brought to the depot as required by the by-law. Of the 16,704 primary cases verified, 15,998 were successful and 706 unsuccessful, the percentage of success being 95·77 against 97·79 during 1918. The Assistant Health Officers verified 7,815 cases.

The percentage of successes in primary vaccinations and revaccinations of all cases verified including those reported by the Government Penitentiary was 95·77 and 46·07 respectively as against 97·79 and 55·24 in 1918.

Vaccination of children under one year of age.

Of the total number of primary vaccinations (17,192), 15,036 were among children under one year of age against 16,689 in the previous year. The fall was due to the reasons already mentioned. The percentage of success in the cases verified was 95.86 against 98.0 in the preceding year. Of 15,036 children vaccinated under one year of age 8,874 or 59.02 per cent were born in Madras and 6,162 in moffusal. The number of children under one year vaccinated was 28·99 per mille of population compared with 32.17 in 1918 and the number of them successfully vaccinated per mille was 27.05 against 30·70 in 1918.

Verification of Births.

The total number of births verified during the year was 15,016 against 17,065 in 1918. Of them, 3,791 or 25·25 per cent died during the year, 2520 or 16·78 per cent were reported to have permanently left the city (for 1918 it was 3,069) and 336 were not traceable at the addresses given in the birth counterfoil in spite of special efforts made for a closer observation of City births. Of the remaining 8,369 the number vaccinated was 7,489 i.e. 49·87 per cent of births verifed. Vaccination was postponed in 720 cases against 785 in 1918. Of these 199 were verifed by medical practitioners and 340 by medical vaccinators and 181 had temporarily left the city. In the remaining 160 cases which were pending at the end of the year, the parents were warned to have the children vaccinated without delay. From enquiries instituted to find out the vaccinal history of 1,105 children born in the city but removed out of it before being vaccinated, it transpired that only 97 were reported to have been vaccinated outside the city.

Hospital Births.

Hospital births numbering 4,199 were verified during the year. Of these 664 or 15·81 per cent were reported to have died, 845 or 20·12 per cent were reported to have been permanently removed from the city and 1,144 were not traceable at the addresses given in the birth counterfoils leaving 1,546 available for vaccination. Of these 1,385 children were vaccinated during the year. Vaccination was postponed on medical certificates in 27 cases, 56 children were found sick by the medical staff and 62 had temporarily left the city. Vaccination is pending in 16 cases. As usual the number of untraced cases was large which in many instances was due to insufficient and incorrect addresses, but with the additional headings newly opened in the birth counterfoils in 1916 with the object of diminishing the number of untraced cases a larger number of them were traced, the percentage of untraced in 1919 being 27·24 against 27·05 in 1918.

The statement on pages 116 and 117 furnishes information as to the number of births verified by the vaccination staff during the year 1919 and the number of children vaccinated before they attained the age of one year.

Analysis of the total according to race.

Out of 32,231 cases vaccinated 1,070 were Europeans and Anglo-Indians, 26,530 Hindus, 3,010 Mohamedans, 1,482 Indian Christians and 139 other castes. The vaccination of "other castes" was proportionately larger than that of any other class, the number vaccinated among them being 7·91 per cent of their population whereas the percentage among Europeans and Anglo-Indians, Hindus, Mahomedans and Indian Christians were 7·3, 6·38, 5·09, and 5·43, respectively.

1227 cases of small-pox were reported during the year. Of these 619 cases were treated in the two Infectious Diseases Hospitals of which 120 cases proved fatal: 377 cases were treated in the Infectious Diseases Hospital, Royapuram and 242 in the Isolation Hospital, Krishnampet.

Vaccinal condition of Small-pox.

The amount of protection against small-pox conferred by Vaccination is well illustrated in the Table below. Of 881 attacks amongst the Vaccinated, 347 or 39·4 per cent died, whereas there were 346 attacks and 264 deaths amongst the unvaccinated, the percentage of deaths being 76·3.

Age periods.	Vaccinated.		Unvaccinated	
	Attacks.	Deaths.	Attacks.	Deaths
Under one year	11	9	95	87
One and under 5 years	108	83	144	127
5 and under 10 years	117	49	36	21
10 and under 15 years	66	15	10	4
15 and under 20 years	74	19	8	1
20 and under 25 years	139	37	17	4
25 years and above	366	135	36	20
Total ...	881	347	346	264

Prosecutions.

The total number of prosecutions instituted during the year was 42 against 39 in 1918. The fines imposed amounted to Rs. 8-12-0 against Rs. 9-2-0 in the previous year. Of these, 31 cases were prosecuted for failure to produce children for vaccination and 11 cases for failure to produce children for verification of results. The result of the prosecution was that 24 out of 42 cases were vaccinated subsequently.

Fees.

The fees for primary vaccinations at private residences under by law No. 11 framed under section 349 (26) of the Madras City Municipal Act IV of 1919 amounted to Rs. 188-4-0 which was credited to the Corporation.

The cost of Vaccination.

The cost of vaccination was Rs. 37,921-12-5. If the amount realized by vaccination at private residences is deducted, the net expenditure amounted to Rs. 37,733-8-5 and the net cost of each successful vaccination was Rs. 1-13-8 against Re. 0-10-8 in 1918. The increased cost was due to the amalgamation of the vaccination and registration work and to the appointment of medical subordinates to be in charge of such work.

CONSERVANCY.

The conservancy of the City continued to be under the control of the Senior Assistant Health Officer till 1st October 1919 when, on account of the introduction of the New City Municipal Act, territorial changes were caused dividing the city into three ranges as stated already. The conservancy work was therefore placed under the control of the three Assistant Health Officers each of them supervising work in his range.

Cleansing Staff. There were during the year under review 489 men, 111 women, and 35 boys engaged in cleansing the City.

Bullocks and Cart Depots. There were 7 conservancy cart depots till the beginning of October 1919 when the number was reduced to 6 in the re-distribution of conservancy work.

Cooly lines. No new lines were constructed during the year for want of funds, although the need for more of such lines was keenly felt, the existing accommodations being very insufficient.

Maintenance of labour. The amount spent on labour employed for conserving streets and public latrines was Rs. 69,094-8-0 against Rs. 61,416-2-4 during the previous year. The increase in cost was due to increase in wages to coolies.

Conservancy Bullocks. The number of bullocks on hand on 1st January 1919 was 1202 against 1229 in the previous year. 247 bullocks were purchased during the year and 3 were permanently transferred from the grass farm, making up a total of 1452 bullocks. Of these, 90 bullocks died of natural causes, 21 from infectious diseases, and 94 were condemned and sold, leaving a balance of 1247 on 31st December 1919. There were, therefore, 205 casualities during the year as against 153 in the previous year.

Health of Bullocks. The Health conditions of cattle were very good. During the year under report one bullock was affected with foot and mouth disease, 13 with Rinderpest and 9 with Anthrax. Rinderpest broke out in February and again in May but was promptly suppressed by adequate preventive measures. This disease broke out for the third time in November. There were 4 attacks and 1 death till the end of December 1919. The out break continued during the early part of 1920. There were 37 attacks and 27 deaths till the end of January 1920. Preventive inoculation by anti-Rinderpest serum was carried on during the outbreak on three occassions on 6th, 13th, and 27th January 1920. After a couple of months' subsidence,

the disease broke out again in April 1920 when again the inoculation was carried out on 2nd, & 23rd April '20 which finally suppressed the outbreak. During this occasion there had been 17 attacks and 12 deaths.

The following is a short history of the outbreak of Rinderpest during December 1919 and after:—

On 27th December 1919 one bullock in D Depot went off feed after morning work in C Depot and rapidly devoloped acute diarrhoea. The bullock was segregated in that depot but died very early the next day. The animal was treated as having died from Rinderpest and all sanitary precautions were taken. On the 28th another bullock of the C. Depot was attacked. The same was sent to old C. Depot. All the sheds in Choolai depot were vacated and the bullocks picketted in the open. A thorough and vigilant watch was kept for the slightest sign of any bullock showing symptoms of Rinderpest. On the 29th there were two more attacks in the same depot and they were segregated in the old C. Depot. 4 fresh attacks were reported on 4th January 1920. On the 6th January 1920 the Veterinary authorities inoculated all the cattle of this depot, they having once received the Anti-Rinderpest serum in November 1919. On 10th January 1920, 3 animals took ill and the veterinary authorities performed the Anti-Rinderpest inoculations over the same lot of live bullocks for the 3rd time between 13th and 27th January 1920. My thanks are due to the prompt Co-operation of the Principal and the staff of officers at the Veterinary College for assisting us in stamping out the disease. It is a matter of the greatest gratification for us that there should have been so few attacks and deaths in our depots from Rinderpest, although the disease was in full swing in several parts of the City. My thanks are not a little due to Mr. Shannon (now on leave) and his depot Superintendents for promptly carrying out preventive and prophylactic measures.

Strikes.

There were no strikes during the year under review but owing to abnormal rise in the prices of food stuffs there seems to have been some amount of dissatisfaction amongst the coolies. Till about February 1920, no complaints were made to any in authority. But on the morning of 18th February 1920, it was found there was strike of conservancy coolies in our cattle depots. The strike started at Choolai Depot, then at Harris Road Depot, and when efforts were made for getting some coolies for the afternoon from Krishnampet and Mylapore, it was learnt that there had been a strike there also. The alleged grievances were that a petition made by some of these men for increased wages was not duly sanctioned. The truth was that a petition was received only a week before and, before orders were passed on it by the executive head of the Corporation, the strike had started. The contamination was actually carried by some kind friends to other depots with the result that there was absolute dead lock. The grievances

of the coolies were duly placed before a committee consisting of the President, the Commissioner and Mr. Rangachariar and on their recommendation, an increase of Re. 1 per cooly was sanctioned by the Corporation.

Later in March 1920, the coolies were given increase by another rupee and in addition, a supply of rice at the rate of 4 measures per rupee is made to each cooly to the extent of Rs. 4 every month to be recouped from his salary. These concessions granted, the whole colony of conservancy coolies appear satisfied and are working peacefully at present.

Improvements.

Improvements effected during the year for the upkeep of the cattle depots are:—

Low lying land was raised in B. Depot by clean earth and ash. A new cattle shed was also constructed there. Drainage arrangements were made to drain off the water from the trough and the platform around it in F depot into the underground sewer.

Conservancy carts.

During the year under report 20 single draught rubbish carts and 40 single draught night soil carts were made.

Removal of rubbish.

The number of cart loads of rubbish removed during the year was, 2,49,995 against 302,010 in the previous year. Rubbish of all kinds was collected and removed. Part of the rubbish collected was utilized for reclamation purposes by the Malaria Department. The total quantity of mixed rubbish received and burnt at the large and small incinerators amounted to 40,280 cart loads against 21,477 during the previous year. With this ash and screened earth 21,540 cubic feet of land was reclaimed. Permits for the removal of 17,760 cart loads of incinerated earth and ash were granted to private parties free of charge for purposes of reclamations.

Disposal of filth.

The three Pail depots (1) at Royapuram (2) at Ice house Road and (3) at Langs Gardens were working throughout the year under report but in April of the current year, the one at Royapuram was abolished on account of numerous complaints received about the nuisance caused from its existance in the midst of residential quarters. The amount realized by the sale of manure and rubbish during the year 1919-20 was Rs. 11,400 against Rs. 15,229-5-4 in the previous year.

Removal and disposal of filth, side scrapings etc.

197,936 cart loads of filth, side scrapings, etc. were removed during the year. Silt and side scrapings so removed were used for covering rubbish at dumping grounds or for reclamation of low lands, etc.

110 gallons of sanitas okal, 1647 gallons of hydro carbon, 114 gallons of Hycol, 56 lbs. Carbolic Powder, 3 gallons of Phenile and 6057 Parahs of chunam were used for disinfecting purposes.

Disinfection.

Scavenging of private latrines.

Under section 294 (*b*) and 295 of the Madras City Municipal Act of 1904, the Corporation undertook conservancy for certain private bodies and the amount realized thereby was Rs. 10,510-3-0 against Rs. 9,692-14-3 in the previous year.

Cleaning of public thoroughfares.

35 boys continued to work during the year for cleansing and keeping clean the thoroughfares and did their work well.

Public latrines.

Two latrines were newly constructed during the year, and one sanded latrine was converted into flush out one and wholetime toties were engaged to keep them in proper order. Sand was renewed in some of the sanded latrines.

Prosecutions.

The number of prosecutions for indiscriminate throwing of rubbish in the street and the washing of night soil into public drains was 98 against 300 in the previous year.

REPORT OF THE SPECIAL MALARIA OFFICER FOR 1919

During the year under review the special malaria office was continued as a separate department under the Health Officer. The establishment maintained was a minimum just enough to keep on with the generally approved measures for mosquito suppression.

Two hundred and sixty-seven children under the years of 2 and 10 were examined for enlarged spleen and 267 blood smears were examined. 2·99 per cent were found to have enlarged spleen and none of the slides showed malaria parasites. 276 smears from patients attending malaria and other dispensaries of the Corporation with fever were examined and 31 or 11·23 per cent showed malaria parasites.

Anti Malaria work.

Cleaning of tanks and ponds.

544 tanks in all were cleaned and recleaned during the year. Several of them required cleaning four to seven times in the year.

Petrolising.

6,056 pits and cess-pools, 165 tanks, 1,058 ponds, 33 lowlands and 30 wells were petrolised every week in addition to numerous other small pools and puddles that generally form soon after the rains in several lowlying tracts and tank-beds. Portions of Cooum and Buckingham Canal were also included in the sphere of our operations.

Clearing Rank vegetation

An area of 7,525 square feet of ground in Purasawalkam, 9,86,375 square feet of ground in Vepery were cleared of all rank vegetation. In addition, 25,625 square feet of ground in Purasawalkam, 22,000 square feet of ground in Royapuram and 18,600 square feet of ground in Perambur were cleared of prickly pear during the year by this Department.

Larvicidal Fish.

Wells where fish were introduced but had disappeared were re-stocked with them. 3,648 wells were examined to ascertain whether fish once introduced were living in them and in 2,120 or 58.1 per cent the wells were found to be fishless.

Administration of Quinine.

Three malaria dispensaries one each at Dhobipet, Royapuram and Purasawalkam continued to work till October 1919. Since then these were converted into general dispensaries and they are located at Georgetown, Egmore and Triplicane respectively. The number of patients treated in these institutions is shown in the following table:—

Dispensary.	Year.	Malaria	Other diseases including all other fevers.	Total number of treatments.
Dhobipet	1919	2,402	3,660	21,973
Do.	1918	688	2,276	19,163
Royapuram	1919	74	6,072	11,326
Do.	1918	1,851	5,460	12,785
Purasawalkam	1919	1,352	5,169	12,009
Do.	1918	3,589	12,573	29,193

The surface drainage of the entire swampy tract in Purasawalkam and Perambur (south of Railway Line) divisions was completed. But there remain over the beds of these low-lying areas, small puddles and shallow pits which are awaiting reclamation. A large number of these is on private ground. It is urged that the Corporation would acquire these tracts that they might reclaim them and utilise the improved lands for house extension.

Reclamation.

Table on page 123 shows the amount of work done in this direction. The reclamation of the old moat within the Central Salt depot was completed.

CHILD WELFARE SCHEME.

Report for one year ending with 30th September 1919.

Review.

The Child Welfare Scheme inaugurated by the Corporation in September 1917 has completed its second year of work in the city. The main object of the scheme, as stated in the first report, continues to be educative both for the Corporation and for the public; and the most important function thereof has been to provide efficient midwifery service and efficient medical aid under an experienced Lady Doctor. To this a milk depot has been recently added, but of this, I shall speak later. It is with real pleasure that we are able to say that success has been ours during the year in many ways beyond our expectations. The public have begun to appreciate the usefulness of the scheme which is becoming more and more popular with them so much so that during the year we had to open a second centre at Washermanpet in May 1919.

In the Triplicane Centre, during the year under review, the total number of infants delivered by our midwives or otherwise taken under our care is 1,052 as against 681 for the previous year. 68 cases were sent to hospital for more serious complications and 78 cases were taken on during the first week of the puerperium for complications with which the barber women who conducted the cases could not grapple. There were 17 cases of sepsis during the year and 14 of these were brought to us after the barber woman's meddlesomeness.

All cases sent by the Health Visitors and midwives of the scheme to the hospital, as well as all those which were called either for puerperal sepsis or other complications have been taken over for regular visits by our Health Visitors, exactly as in the cases of labour actually conducted by our midwives.

Out of the total of 1,052 babies, 842 are alive at the time of writing this report, ranging in age from one year to a few days.

The "infantile death-rate" of infants visited by us is 276·8 *per* 1,000 births, a figure although appallingly high, compares favourably with the figure for the whole City, *viz.*, 355·5 *per* 1,000 births for the year 1918. But it should be remembered that these are from the populous and greatly overcrowded parts of the City *viz.*, Triplicane and Royapettah where infant mortality rates are habitually high. Our figures will undoubtedly show a further improvement now that we have begun to supply milk.

The Washermanpet Centre was opened on 26th May 1919. Miss Helen Williams, Health Visitor trained at Delhi Health School was appointed to be in charge with two midwives: (since 10th October two more midwives are added to this centre making four in all). The Lady Superintendent visits the centre once weekly and more often if needed. The old Vaccination Depot has been handed over entirely for the purpose of Child Welfare Work. The Health Visitor and one midwife now reside in this centre.

New centres.

91 cases of labour were conducted altogether by the midwives attached to this centre to end of September. 201 cases of pregnancy in various months of gestation were registered by the Health Visitor. Of these, 41 were taken up by the midwives, 11 were sent to hospital for various complications, of the remaining, a large number are under our observation, not having attained full term.

It is as well to state that a third centre has been started at Purasawalkam from 10th October in a building close to the Bauliah Naidu Dispensary, Rotler's Lane. Miss Bakiam, L. M. P. (Lahore), has been appointed in charge. The work here has already shown signs of gratifying success.

Details of work carried out during the year have been shown in a series of tables enclosed to this report as an appendix. Tables I to VI are for the centre at Triplicane and VII for that at Washermanpet. Briefly stated, table I shows the proportion of labour cases conducted by Corporation midwives to total births registered in this area, it being 21·3 *per cent* as against 11 *per cent.* for previous year.—

Details of work.

Table II shows (1) total labour cases conducted under the Child Welfare Scheme (according to old divisions) for 1918-19	906
(2) Number of cases sent to hospital...	68
(3) Number of cases taken on for treatment subsequent to labour conducted by an unqualified midwife ...	78
Table III shows maternal morbidity...	205
and maternal mortality	11

Only two cases died of puerperal sepsis, the deaths occurring when the Lady Superintendent was on leave and the patients were taken over to medical aid at a very late stage.

General causes.

Tuberculosis.—Four were long standing cases. Three of these will be referred to hereafter. Two cases died later in the year ; three improved markedly during months of treatment at the centre. One, a fairly early case was free from all symptoms when she left for the moffusil.

Eclampsia.—Six cases were brought to our notice. Two were sent to hospital as it was impossible to carry on any effective treatment in their own house These two recovered. The third refused to be treated by us or at the hospital and died after having had a hakim, while of the remaining three that were under our treatment, two recovered.

Adherent Placenta and Postpartum Haemorrhage :—Six cases of adherent placenta and subsequent Postpartum Haemorrhage due to malpractices of unqualified women who were evidently pulling at the cord were brought to our notice. There was inversion of the uterus in one of these, three were sent to hospital, two died and one recovered. Of the other three that were treated in the house, two recovered and one died.

Placenta Praevia.—There were two cases and they were sent to hospital and one of them recovered.

Abnormal presentation.—One transverse case was sent to hospital. We were called in after two barber women had badly handled the case and one hand had prolapsed, and the patient herself was in a bad state. This case recovered in hospital, but the child was still-born.

Influenza.—The general outbreak of this disease adversely affected pregnant women in particular. A good many cases of premature labour were due to Influenza. Two of these cases had double Pneumonia as a complication, one of them a mother of twins lost both babies from Enteritis while she was herself unwell. Of 26 cases who were attended at their houses, 21 recovered, while a large number attended the dispensary during the epidemic.

Table IV shows the most common causes of death amongst infants visited by Health Visitors during the first year of life. The largest number of infants that died was during the puerperium and it was evidently due to prematurity. The next largest figure was under Influenza and Respiratory diseases.

Table V shows the number of visits paid by the Health Visitors and calls answered and visits paid by nurses on duty at Centre, they being 5,500, and 14,278 respectively. The Superintendent made 610 visits on professional grounds.

Table VI gives figures of attendance at the dispensary and shows the most common causes of sickness amongst infants for which medical aid is sought for. The dispensary is a popular one and many come for medical aid from outside the area for which it is meant, as Saidapet, Chetput, Perambur and consequently the popularity of the scheme depends largely upon the dispensary. The Health Visitor and midwives are responsible to bring mother and child to the centre or to induce them to resort to the Centre in all cases of sickness.

Table VII gives figures for washermanpet Centre. Although situated next-door to the Washermanpet Dispensary, regular and daily attendance on infants and mothers has not been possible for want of a Lady Doctor and we hope to be able to secure one at an early date.

Midwives.

The chief duties of midwives consist in attending at child birth and in daily visiting the mother and infant for the first ten days of puerperium. They advice the mother with regard to the care of her own body and more especially the care and up-bringing of the new-born baby. They give advice on "mothering" and on simple matters of Hygiene and Domestic Sanitation, such as the importance of light and air. They also bring to the notice of the authorities unregistered births, unvaccinated children and cases of sickness. They assist Health Visitors in finding out prospective mothers among the poor and to induce them to seek their assistance at the time of delivery. The visits of the midwives and Health Visitors are frequently the means of bringing to our Centre the suffering poor who would otherwise not know the existence of the facilities provided, or knowing, would be unwilling or negligent to benefit by them.

At the commencement of our second year of work there were eight midwives on the rolls and during the year three more were appointed in accordance with the demand for their services, so that, at the close of the year there were 11 in all. The work of the midwives during the last year has been more encouraging, attendance more regular and their conduct very satisfactory; these are largely due to the supervision of their work by the Health Visitors in their homes and by the resident nurse in the Centre. Many acts of irresponsibility, such as not answering a call in time, or neglecting the baby or mother have been prevented in time. Five were dismissed for grave misdemeanour. Recognition of seniority by the Corporation by granting a graded system of pay has helped greatly in the maintenance of discipline. The graded system ought also to help in ensuring continuity of service. A nurse according to recent orders starts on Rs. 30 and after a year's approved service is paid Rs. 35 and by her energy and devotion to work can attain a maximum of Rs. 50 within a few years. In addition to pay each nurse is paid Rs. 15 rickshaw allowance and quarters to live or Rs. 8 in lieu.

This step should be a decided gain to our scheme as it will be an incentive to Nurses to continue in our service and in return, the Corporation will have the benefit of their experience and popularity amongst the class of women they deal with, two most essential factors in making child welfare work a success. Further, the higher salaries offered should be an incentive to educated women to undergo training as midwives and nurses and should be a means of improving the quality of new recruits.

Residential quarters for midwives attached to the Triplicane centre have been granted and No. 6, Thahir Sahib Street, has been taken on at a monthly rental value of Rs. 50 from 1st October 1919. The midwives are better housed and live under healthier environments (some of their previous homes were really most insanitary and unfit to live in). There is no doubt that this will be conducive to their better health and more than all, discipline and prompt service have been more easily ensured.

The headquarters of the Triplicane Centre have been, since 1st November 1919, removed to No. 19, Vallabha Agraharam Street, where the resident nurse is required to take her permanent residence. The Corporation will have to consider at an early date the question of providing their own *habitation* for the Centre and for the midwives and the Visitors designed to suit our purpose.

Health visitors.

Three of the senior and more experienced ones amongst the midwives were selected to be Health Visitors. One of them is in addition a well-trained Nurse. The Lady Superintendent has undertaken to train them as Health Visitors. A syllabus of study was drawn up and the course of instruction runs for a year. The first classes were started in January 1919 and the three selected midwives are receiving instruction in Elementary Physiology, Hygiene, Sanitation, Medicine, Diseases of women and children, First aid, Infant welfare and Home Nursing.

The question of securing suitable Health Visitors and in larger numbers has to be seriously thought of. The work of the midwives cannot be continued up without health visits in any scheme of child welfare work. It is true that a Health School has been opened at Delhi since November 1918, but the conditions of admission and courses of study are such that women with a high standard of English education only can get admission and hope to secure a pass. During 1918 one of our midwives went up for training but she was not able to get through her final examination. As she had the required training we appointed her as one of our Health Visitors.

The training and teaching of Health Visitors have had to be taken up by us since at present there are no institutions either in or near Madras where such teaching is undertaken. The local Maternity Hospitals turn out a number of trained midwives annually, but the instruction they receive appear to be restricted to child-birth and its immediate consequences. Talking from experience, it is disappointing to find that most of these, in spite of their one year's training in a hospital as a resident nurse, learn little or nothing of bed-side nursing. Several of these could not read a thermometer and few know how to make a poultice. The fact seems to be, that a large number of recruits lack in general education.

and it looks as though several of them are incapable of receiving the training. Even our trained midwives need special instructions, oft repeated, as to (1) methods of conducting normal cases, (2) value of cleanliness and antiseptics while confining patients and (3) dangers both to mother and infant from neglect. They also have often to be taught to behave with their clientele and to earn their confidence.

As we extend our work and other centres are opened, we shall need more Health Visitors on our staff. The consideration therefore of their training is certainly the duty of all interested in child welfare work. It is as well that early steps are taken, preferably in connection with the Health and Welfare Association to start a Health School where such training can be given. For the work of the Health Visitor is very difficult and on her really the success of child welfare work rests. As Doctor Mary Scharlieb, C. B. E. says " various are the duties, abundant are the opportunities, and unlimited are the worries and responsibilities of the Health Visitors. She does not possess the official standing of the Sanitary Inspector nor the professional status of the doctor. Like the mother herself she must be prepared for much work, much misunderstanding and very little official recognition and support. The good Health Visitor is, however, a most valuable member of the body politic and has within her power a very large share of the comfort and well-being of our mothers and children."

The Health Visitor needs to be a sympathetic woman who can grasp a situation quickly and intelligently. The condition of training and salary need to be such as would attract the right kind of woman. For Health Visitors, the recent sanction given by the Corporation of a scale of pay graded from Rs. 50–3–80 together with allowances amounting in the aggregate to Rs. 29 *per mensem*, should prove an attraction.

Antenatal dangers

The work done in our centres has helped to bring to light many facts regarding antenatal dangers. The chief among these are Tuberculosis, Alcoholism, Syphilis and Gonorrhœa.

Tuberculosis:—It is undoubted that many of the cases entered as Anæmia and Gastritis in the dispensary are really cases of early Tuberculosis. Definite diagnosis is not possible in a general out-patients' dispensary. Yet the danger of the spread of the disease is evident to all, and it is to be considered whether special measures need not to be taken for the study of the prevalence of this disease in crowded localities especially in Ghosha quarters. It should besides be preventible in a City where sunshine is plentiful. Yet there are hundreds of living and sleeping apartments in the City where sunshine does not penetrate either because of the lack of a necessary inlet or because the only inlet has a thick dirty gunny

'purdah' the inmates being "ghosha." Sunshine, pure air and a good state of nutrition are the enemies of consumption; its allies are to be found in dirt, dust and darkness. These allies, alas! are all too common in the average Madras home. The question, therefore, is closely connected with housing, sanitation and ventilation. The sanitary conscience of land-lords needs to be awakened, sanitation needs to be more effectively carried out and people generally educated to realise the value of sunlight, fresh air and cleanliness.

Three of our mothers died of Tuberculosis during the year. Pregnancy and labour are a very severe strain on the tubercular woman. One of these died of heart failure within two months after the birth of her baby; the second died of Tubercular Diarrhoea during the puerperium after a premature still-birth; the third succumbed to Influenzic Pneumonia after months of chronic cough and wasting. Her baby died soon after also of Influenzic Pneumonia. Tuberculosis in the mother therefore has a direct bearing on the welfare of the child. A certain proportion of babies die early in the first year of life succumbing easily to diseases as the result of lowered vitality at birth due to the poor health of the mother. The risk of the child getting directly infected from the mother are of course great, although tuberculosis is not known to be transmitted hereditarily.

Alcoholism.—Is not a matter of much consequence amongst women of this country; nor is it a common danger in all the lower grades of Indian society. Yet mention may be made of the drink evil in certain sections which is sufficient to be a menace to infant life. One has only to visit the Mattu Kuppam in Triplicane during the evening or at night to see this for oneself. Chronic alcoholism in women frequently results in abortions, premature births and sterility, and still further the alcoholic mother is less able to look after her child than the one who abstains. Recent investigations by the late Sir Victor Horsely, Colonel Adami and Dr. Stockard have proved the deleterious effect of alcohol after birth, during birth and during foetal life, and even earlier still in the generative cycle damaging the essential reproductive elements of man and woman even before matrimony and interfering more or less gravely with the power to procreate and to conceive children. In a Kuppam where men and women get drunk, it is conceivable that their children can easily get a bit openly or stealthily and soon fall a prey to this great evil. Various acts of ignorance and irresponsibility that ensue in consequence cause such localities to be a source of common danger.

Syphilis and Gonorrhoea.—It is quite common to find in the history of women who have called us during labour, many premature births, still-births and also deaths of children during the first or early years of life. Syphilis is a potent cause of this loss of innocent life. The proportion of syphilitics treated by us to

those free from that disease among our patients gives no correct idea of the extent of the prevalence of this disease. Since the practice of midwifery is yet so largely in the hands of unqualified women, the ignorant and demoralised section of the population would be the last to feel the need to apply for trained assistance at the needed time. The treatment of Syphilis as carried on at an out-patient dispensary as ours cannot be said to be the most satisfactory way of dealing with this disease. Steps need to be taken in this particular matter and public opinion needs to be enlightened before any success is hoped for.

Gonorrhoea.—Of Ophthalmia Neonatorum we have had only six cases. Midwives are required to treat the infants' eyes with the prophylactic eye-washes soon after birth. Where the mother has been found to be infected, she has been treated either by us or sent to a hospital. Gonorrhœa has been found to be the cause of 50 *per cent.* of sterility and of 25 per cent of blindness in England and Wales; this evil disease is possibly the cause of a great deal more in this country, where the barber woman has so large a midwifery practice and almost certainly carries the germs of infection on septic fingers from patient to patient, causiug serious subsequent trouble to many innocent babies and mothers.

The training of the mother

This is a very useful bit of work done in the Centre. The teaching here regarding feeding, clothing (some have been taught to make flannel jackets) bathing, and recognising early signs of disease, supplement that of the Health Visitor in the homes. Table VI*b* shows the number of mothers and babies who have attended the dispensary which is very popular amongst them. We have succeeded not only in having sick infants brought to us for treatment but also in getting healthy babies for monthly inspection and weighing.

Maternity Homes

Our scheme has not made any provision for these, nor are they in our programme of work at present, although we have taken and delivered in our centre a few cases that could not be sent to hospital. A maternity home in practical working would mean a miniature maternity hospital but only very insufficiently equipped. What is needed seems to be a few centres in the crowded parts of the city, where working mothers can be received 3 to 4 weeks previous to delivery and kept on for 4 to 6 weeks after delivery. For it is well known that women of the poorest class have to work themselves and contribute to the family earnings. The pregnant mother has to work till almost the last moment of her getting into labour and again to resume work within the next 10 to 15 days following—a state of affairs not conducive to mother's health and certainly baneful to the growth of the new born infant. A maternity home should be a place where mothers are received and maintained for the periods said above and it should be a place where they could get

a hearty meal twice a day, if needed, for a small payment. Preferably the home may be made largely self-sustaining by housing such women and in return getting them do light work such as sewing, knitting, or weaving, the sale proceeds of which should go to the funds of the home or in other words, the maternity home worked somewhat on the lines of the women's section of the Friend-in-need Society. Can we look up to some philanthropists who can give a thought to this?

Poverty and Environment.

Out of 737 cases whose economic status was enquired into, 230 were amongst those whose total monthly income was not more than Rs. 15 *i.e.*, 31 *per cent.* approximately. Most of the cases that are taken up by us come from the poorest classes and the rest from the poorer middle class public, whose total monthly income does not exceed Rs. 50. Complaints seem to have been made that we attend to calls from rich people as well. There is no foundation for this firstly, and secondly, it is at times difficult to discriminate whether one who makes a requisition for a midwife for an urgent case is rich or poor, and valuable time may be lost in enquiring about this before the call is answered.

The actual members of a family is never small, as many as six children being very common and in almost all cases there are dependants besides. It seems impossible for a man living in the heart of the city and employed as a labourer at the existing standard of wages say, Rs. 8 to 10 a month, to keep a wife and family of six children without being in poverty. His only chance of getting on in life, after leaving a margin for drink or tobacco or both, lies in the family earnings being increased by his wife's earnings or by the earnings of a child. The necessity therefore exists among this large class for the wife to leave her infant and other children to go to work and for the grown up children being put to work at the earliest opportunity. Poverty leads to bad-housing and consequent overcrowding. "Poverty whether through lack of employment or drink, the dirty state in which the houses and children are kept and the ignorance and carelessness as to feeding and care of the infants are the main factors for our large infant mortality figures". Since March this year, no less than 9 cases of rickets were brought to our centre from the comparatively small area from which our out-patients are drawn. In every case the mother admitted feeding the baby improperly through not being able to obtain pure milk. Rice conjee or a watery but highly sweetened decoction of coffee were the articles of dietary for the baby. In these cases helpless poverty appears to have been the chief source of mischief rather than wilful ignorance.

The wonder is how so many infants survive in spite of this pinching penury and very low standard of living. Although "the physique of the mother does unquestionably exert an effect on her offspring, the tendency of nature is on behalf of the infant. It is well indeed that it is and it is this that brings perhaps

70 to 80 *per cent.* of all new-born infants up to a mean physical standard in spite of ill-environment or the poverty of the mother's physique".

Poverty and disease act as cause and effect and *vice versa* and form a vicious circle tending to general decay. Born with a lowered vitality or having been endowed with a small store of life, the children alive are the survivals of the fittest. Either with health below par, or stricken with disease as a result of obnoxious slum surroundings, the children of to-day cannot accomplish in future days that which they ought to for the State. The recent war has recently brought this fact prominently before the minds of thinking men and women. Great strides are being made in all countries for preservation of child life, and child life is truly the wealth of a nation.

The care of the child

Our scheme provides for the care of the baby until it is 12 months old. Its welfare after this period is unknown to us and there are no agencies by which their care is taken up. Nor has the Corporation attempted "creche". A "creche" or a 'day Nursery' is a place where children of women of the labouring classes are received and looked after, during the day time while the mothers are at work. To be of real value, a creche should be very well equipped with a large and reliable staff and provided with efficient clothing and bedding, etc. Possibly for a long stretched out town like Madras there should be several such and the cost would be prohibitive for a poor Corporation. There seems to be little or no use in putting up a place where only a handful of babies would be all that could be received and treated.

Milk Depot

So, as a first step in solving this problem, the Corporation has started from the beginning of October to supply milk free of charge to infants of the poor. The supply at present, is restricted to those infants only who are delivered under our scheme. Every infant that is taken upon our books for milk supply is first certified by the Health Visitor as deserving. The infant is then examined by the Lady Superintendent who notes down its weight at the same time, and fixes the quantity of milk needed. At the time of writing this report, there are about 100 babies getting milk. Milk is also given under special circumstances to mothers, puerperal or sick at home, at the discretion of the Lady Superintendent.

Children's Hospital

While on the subject of care of children it is as well to emphasise the great need in this City for an up-to-date children's hospital Most children cannot secure a fair chance of recovery in the average Madras homes, where the most elementary principles of sanitation and hygiene are unknown. Further there has been, beyond attributing loose terms as poverty and insanitation as causes of infantile mortality, little or no investigation

into the true causes that are peculiar to Madras in this respect and nothing less than a well-equipped and suitably staffed children's hospital can undertake such investigation. A children's hospital is thus a primary need and one that cannot be overlooked for long, if measures for child welfare should be adopted with economy and with an eye to success in saving children.

Our Visitors

The Hon'ble the Surgeon-General was our first visitor. It is needless to say his real interest and understanding sympathy are invaluable to our work. His Excellency Lord Pentland was our second visitor on the 22nd October 1919. We are very grateful to His Excellency for all the support and encouragement given to our work in its initial stages. He expressed satisfaction at the beginning we had made.

Her Excellency Lady Pentland visited us on the 8th February 1919. Her Excellency's words of advice as to the importance of continuity of service in the scheme are still remembered as a useful principle for our guidance.

K. C. Desikachariar, Esq., Commissioner, Madras Corporation, visited us later on the same day. We are grateful to him for emphasizing in his remarks in the Visitors' book two of our chief needs--an efficient nursing staff and a children's hospital.

Mrs. Todhunter, Mrs. Monahan, M. B., and Mrs. Whitehead visited us later in the year. Thanks are due to them for their great interest, and we have no doubt much to hope for as a result of their sympathy.

Her Excellency Lady Willingdon, D. B. E., whose lively interest and inspiring example in work of this kind elsewhere are well-known, visited our Triplicane Centre on the 5th July 1919 and made the following remarks in the Visitors' book. "I was most interested in the work at the centre and thought it quite excellent. I wish it could be increased and many other centres started all over the City. I congratulate the Municipality on their great beginning, and Dr. Virasinghe on her splendid work."

The following letter with a cheque for Rs. 300 was later received :--

Dear Madam,

"I beg to enclose Rs. 300 from Her Exellency to help you in the work you are carrying out. Her Excellency was much struck by the work you were doing to help the children and thinks you will be able to make use of this cheque in buying any small comforts for the children.

Yours sincerely,

(Sd.) K. O. GOLDIE.

The great impetus that has already been given to child welfare work in this city by Her Excellency's interest is bound to have far-reaching effects towards the amelioration of existing conditions and we, in particular, are deeply grateful for all the kind words of advice we have been receiving at her hands

Conclusion

While the work at our Centre has been steadily progressing, it is being realised more and more that to have a healthy child population we need to have healthy parents in healthy homes. More food and better-housing we yearn for repeatedly and to this may be added a third namely, greater facilities for treatment of sickness and disease, especially amongst infants. That poverty, ignorance, neglect and insanitary surroundings are the principal causes of high infantile mortality has been too often written to be repeated here. Yet little has been achieved in the direction of removing these conditions of misery. The Corporation does its little bit in trying to improve sanitary conditions but the Health Department can hardly hope to grapple alone with the social and economic factors with any hope of success. Madras with its extensive area and growing population and a large proportion of poor (more than 80 *per cent*) offers a very wide field for many more such agencies which can be closely *associated* with the sanitary administration of the city. There are at present no organised agencies with a capital worth the organisation which the Corporation can look to, and as for the Corporation itself, its poverty is acknowledged on all hands and it can only put up what it can spare after meeting the expenditure on *its huge machinery.*

In my remarks on the first year's work, I detailed certain schemes for extending child welfare work. Except that the Corporation have just been able to add two more centres, the general response given to them is not very encouraging. The successful prosecution and development of such work depends on a variety of circumstances. Speaking generally, public sentiment, enlightened public opinion and social conditions and resources are all factors which either advance or retard progress in this as in all other sanitary matters. They are factors which should stimulate voluntary effort and general impulses of philanthropists for organising works of a similar nature and for co-operating with the sanitary authority, with a view to produce the most useful and successful results. Voluntary agencies are indispensable and preferable and when run by progressive and open-minded people infuse confidence and trust amongst the class of the public for whom they are intended.

L. N. VIRASINGHE,
M. B., B. S.,
Lady Superintendent, C. W. Scheme.

K. RAGHAVENDRA RAO,
Ag. Health Officer,
13*th November* 1919.

Table I.

Total labour cases taken by Corporation Midwives during October 1918 to September 1919.

Months.	Div.	16	17	18	19	Extra.	
October 1918 ...		1	36	9	5	1	
November ,, ...		2	30	14	6	5	
December ,, ...		2	34	17	8	6	
January 1919 ...		3	35	22	15	3	
February ,, ...		1	40	11	12	2	
March ,, ...		8	33	22	7	2	
April ,, ...		6	28	23	15	1	
May ,, ...		3	39	24	13	10	
June ,, ...		4	34	26	13	7	
July ,, ...		6	37	23	11	5	
August ,, ...		3	44	21	10	5	
September ,, ...		4	51	25	21	2	
Total ...		43	441	237	136	49	=906

Total births registered in the old 16, 17, 18, and 19 Divisions=4,937.

Percentage attended by Midwives from 1918 to 1919=21·3 *per cent.*

Do. do. from 1917 to 1918=11 *per cent.*

Table II.

Total Number of cases in which labour was actually conducted by our Midwives for 1918—1919	906
Number of cases sent to Hospital	68
Number of cases taken for treatment and visits during puerperium and after	78
Grand Total ...	1,052

Table III.

MATERNAL MORBIDITY

(*Puerperal.*)

Eclampsia.	Placenta Praevia.	Antipartium Hoemorrhage.	Postpartium Hoemorrhage.	Adherent Placenta.	Difficult labour: Sent to Hospital.	Difficult labour: Taken by us.	Forceps.	Sepsis: After Barber woman.	Sepsis: Taken by us.	Malaria.	Influenza.	Bronchitis.	Anaemia.	Tuberculosis: Diarrhoeae.	Tuberculosis: T. P.	Cystitis.	Breast Abscess.	Dysentery.	V. D. H.	Small pox.	Cellulitis.	Syphilis.	Lymphangitis.	Total.
6	2	3	6	6	64	9	5	14	3	3	21	3	15	3	3	4	7	9	4	3	2	9	1	205

MATERNAL MORTALITY

(*Puerperal.*)

Sepsis.	V. D. H.	Influenzic Pneumonia.	Eclampsia.	Dysentery.	Total.
2	1	5	2	1	11

Table IV.

Causes of death among infants visited by Health Visitors during the first year of life.

Divisions	1 Total No. of Births.	2 Premature and Died within ten days.	3 Respiratory.	4 Alimentary.	5 Small-pox.	6 Influenza.	7 Syphilis.	8 Malnutrition.	9 Multiple abscess.	10 Cause unknown.	11 No. Living in the City.	12 Left the City.	13 Not traceable	14 Still-born.
16	113	11	2	3	...	3	...	...	1	7	69	8	4	5
17	173	6	6	2	...	18	1	...	...	10	109	2	9	10
18	207	10	7	6	2	9	...	2	...	7	138	5	4	17
19	188	15	8	10	...	10	...	1	...	8	115	6	6	9
Total.	681	42	23	21	2	40	1	3	1	32	431	21	23	41

Total live births in infants traceable for the first year of life

(column 1—columns [12+13+14])=596.

Total deaths among these infants (columns 2+3 to 10)=165.

Infant Mortality Rate ... 276·8.

Table V.

Number of Visits paid by Health Visitors during the year.

		Total.
16th Division	237	5,500.
17th do.	3,156	
18th do.	1,279	
19th do.	700	
Extra	128	

Calls answered and visits paid by nurses on duty at centre ... 14,278.

Number of Medical visits paid by Doctor ... ... 610.

Total Number of Muhamadans in 16,17,18,19 and extra divisions 540

Total Number of Hindus 512

Table VI*a*.

Table showing Total attendance of children and mothers at the Child Welfare Centre, Triplicane, by Months from 1st October 1918 to 30th September 1919.

Months.	Under 1 year.	1—5 years.	5—12 years.	No. of Women	Total attendance in each month.	Common causes of sickness in Infants and children under 1 year.						
						Respiratory.	Alimentary.	Skin affection.	Influenza.	Ears & Eyes	Syphilis.	All other General Diseases.
1918.												
October ...	67	80	16	101	264	20	7	19	11	2	...	8
November	79	60	25	68	232	28	11	21	3	1	2	13
December	76	67	11	66	220	29	9	15	...	5	2	16
1919.												
January ...	85	89	24	107	305	19	16	32	...	1	2	15
February ...	78	86	25	108	297	18	10	20	...	5	...	25
March ...	96	69	18	98	281	31	10	24	...	5	2	24
April ...	45	27	12	44	128	12	2	13	...	2	...	16
May ...	81	53	28	87	249	24	12	19	...	2	1	23
June ...	91	60	40	107	298	15	15	24	1	7	1	28
July ...	123	93	40	145	401	31	22	25	6	3	2	34
August ...	104	83	38	134	359	32	16	16	9	2	...	29
September.	92	91	39	109	331	36	9	22	1	2	...	22
Total.	1,017	858	316	1,174	3,365	295	139	250	31	37	12	253

Grand Total ... 3,365.

Table VI*b*.

Table showing the total number of women and children that attended the Child Welfare Centre, Triplicane, for treatment from 1st October 1918 to 30th September 1919.

Months.	Under 1 year.	Yrs. 1—5	Yrs. 5—12	Women.	Total.	Preg-nant.	C.W.S. mother	C.W.S. child.
1918.								
October ...	67	80	16	101	264	21		
November ...	79	60	25	68	232	15		
December ...	76	67	11	66	220	21		
1919.								
January ...	85	89	24	107	305	28	36	49
February ...	78	86	25	108	297	32	48	53
March ...	96	69	18	98	281	21	45	62
April ...	45	27	12	44	128	10	12	16
May ...	81	53	28	87	249	21	36	54
June ...	91	60	40	107	298	36	38	56
July ...	123	93	40	145	401	47	66	99
August ...	104	83	38	134	359	39	49	62
September ...	92	91	39	109	331	31	42	65
Total ...	1,017	858	316	1,174	3,365	322	372	516

Table VIc.

Table showing the total number of Women and Children that attended the Triplicane Child Welfare Centre for treatment according to diseases.

Months.		Respiratory.	Alimentary.	Skin Affection	Influenza.	Anæmia.	Ears & Eyes	Syphilis.	Other causes.	Total.
1918. October ...	Under 1 year	20	7	19	11	...	2	...	8	67
	1—12 years	11	6	15	33	...	12	1	18	96
	Mothers.	8	4	...	52	7	3	...	27	101
November ...	Under 1 year	28	11	21	3	...	1	2	13	79
	1—12 years	18	5	20	9	...	9	2	22	85
	Mothers.	7	9	3	13	8	2	...	26	68
December ...	Under 1 year	29	9	15	...	...	5	2	16	76
	1—12 years	17	13	21	...	...	3	...	24	78
	Mothers.	2	17	5	1	4	5	1	31	66
1919. January ...	Under 1 year	19	16	32	...	...	1	2	15	85
	1—12 years	21	5	26	...	..	6	1	54	113
	Mothers.	7	25	14	...	17	3	...	41	107
February ...	Under 1 year	18	10	20	...	...	5	...	25	78
	1—12 years	6	15	22	1	...	13	...	54	111
	Mothers.	2	2	8	7	24	2	1	39	108
March ...	Under 1 year	31	10	24	...	...	5	2	24	96
	1—12 years	14	5	32	...	...	7	1	28	87
	Mothers.	7	14	9	1	17	1	1	48	98
April ...	Under 1 year	12	2	13	...	...	2	..	16	45
	1—12 years	1	5	12	...	...	7	...	14	39
	Mothers.	2	4	1	...	6	...	...	31	44
May ...	Under 1 year	24	12	19	...	...	2	1	23	81
	1—12 years	6	3	19	...	...	15	...	38	81
	Mothers.	5	8	1	...	14	2	1	56	87
June ...	Under 1 year	15	15	24	1	...	7	1	28	91
	1—12 years	14	5	17	5	...	15	1	43	100
	Mothers.	7	14	6	3	18	...	...	59	107
July ...	Under 1 year	31	22	25	6	...	3	2	34	123
	1—12 years	11	10	8	18	...	18	2	66	133
	Mothers.	6	18	3	28	19	5	2	64	145
August ...	Under 1 year	32	16	16	9	...	2	...	29	104
	1—12 years	14	7	8	27	...	8	...	57	121
	Mothers.	9	15	1	34	23	3	...	49	134
September ...	Under 1 year	36	9	22	1	...	2	...	22	92
	1—12 years	18	2	18	16	...	20	...	56	130
	Mothers.	3	17	5	14	22	...	...	48	109
Total ...	Under 1 year	295	139	250	31	...	37	12	253	1,017
	1—12 years	151	81	218	109	..	133	8	474	1,174
	Mothers.	65	170	56	153	179	26	6	519	1,174

Grand Total 3,365.

Table VII

Washermanpet Centre.

Number of Babies born	...	103
,, Still-Born	...	6
,, Premature	...	1
Died within 10 days	...	2
in 3rd month	...	2 (1) of diarrhoea (2) of malnutrition
in 6th month		*Nil.*
in 1 year		*Nil.*

Maternal Morbidity

Sepsis ...	...	8
Difficult labour	...	8
P. P. H.	...	3
Eclampsia ...	...	4
		23

Maternal Mortatity.

Puerperal Sepsis ... 2

Number of cases answered and visits paid by nurses 1,027

Number of visits paid by Health Visitors during the year
201+86+130+188+257 ... 862

No. of Medical visits paid by Doctor 32

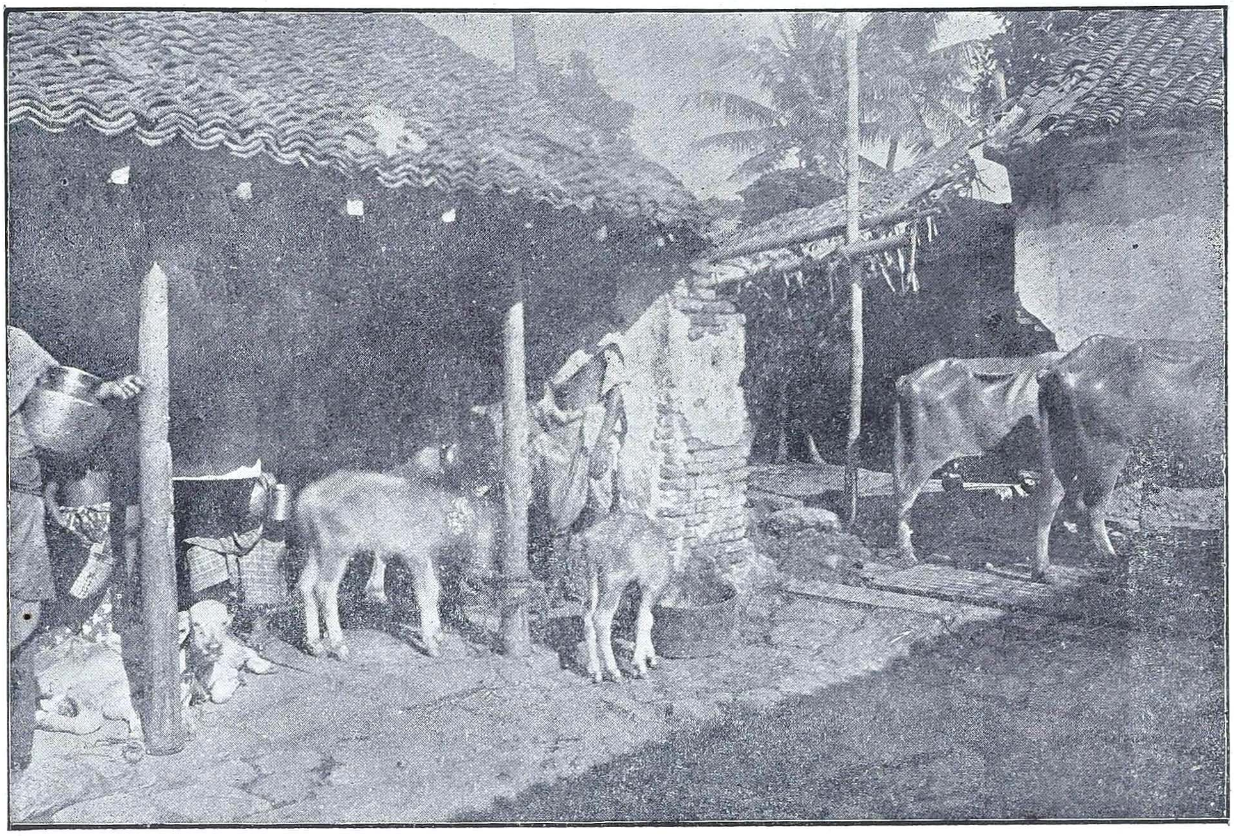
Table VIII.

Table showing Details of all Births in Six Municipal Divisions for one year from 1st October 1918 to 30th September 1919.

Divisions.	Total No. of Births from 1st October 1918 to 30th September 1919 excluding still-births.	Number attended by Corporation midwives.	Percentage to total Births.		No. attended by qualified midwives other than Corporation midwives.	Percentage to total Births.		Number attended by Barber midwives.	Percentage to total Births.		Number Delivered in the Hospitals.	Percentage to total Births.		Number attended by none.	Percentage to total Births.	
			1919	1918		1919	1918		1919	1918		1919	1918		1919	1918
16	1,171	43	3·7	8·8	49	4·2	...	768	65·6	69·9	309	26·4	21·3	2	·1	...
17	1,552	441	28·4	12·2	36	2·3	...	742	47·8	65·4	301	19·4	20·3	32	2·1	2·1
18	1,111	237	21·3	14·5	53	4·8	...	660	59·4	72·1	129	11·6	10·5	32	2·9	2·9
19	1,117	136	12·2	12·3	79	7·1	...	572	51·2	66·4	217	19·4	15·4	113	10·1	5·9
2	597	25	4·2	...	8	1·3	...	418	70·0	...	146	24·5	...	..	...	...
3	186	20	10·7	...	1	·5	...	129	69·4	...	36	19·4	...	...	...	..

Some of the babies and mothers belonging to the Child Welfare Scheme, Madras. Some of the babies front, as their mothers are gosha, have others to take care of them while being photographed. Two Health Visitors are seen standing behind on the left.

Three cases of Rickets:—Since March 1919, cases of Rickets have been brought to our notice. This disease is note known to be so prevalent in Madras. The little baby on the extreme left was a case of Rickets, but has been under our treatment for the last three months. Many babies are fed with the water strained away while rice is cooked, from the first month or even earlier; a starchy diet started so early is one of the chief causes of Rickets.

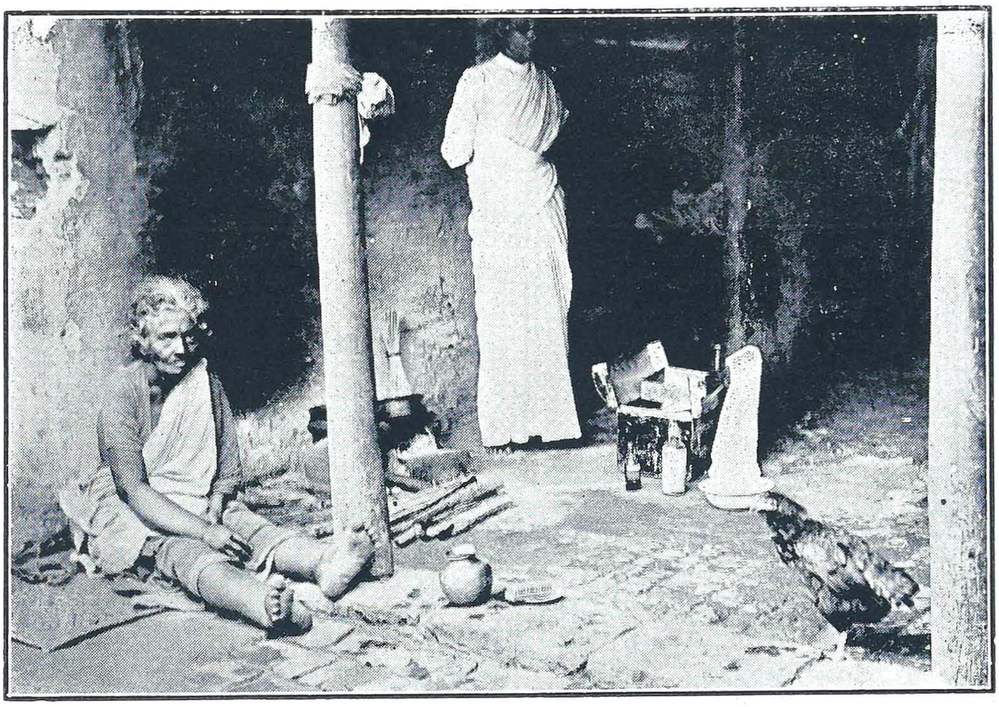


ONE OF THE HOMES IN TRIPLICANE.

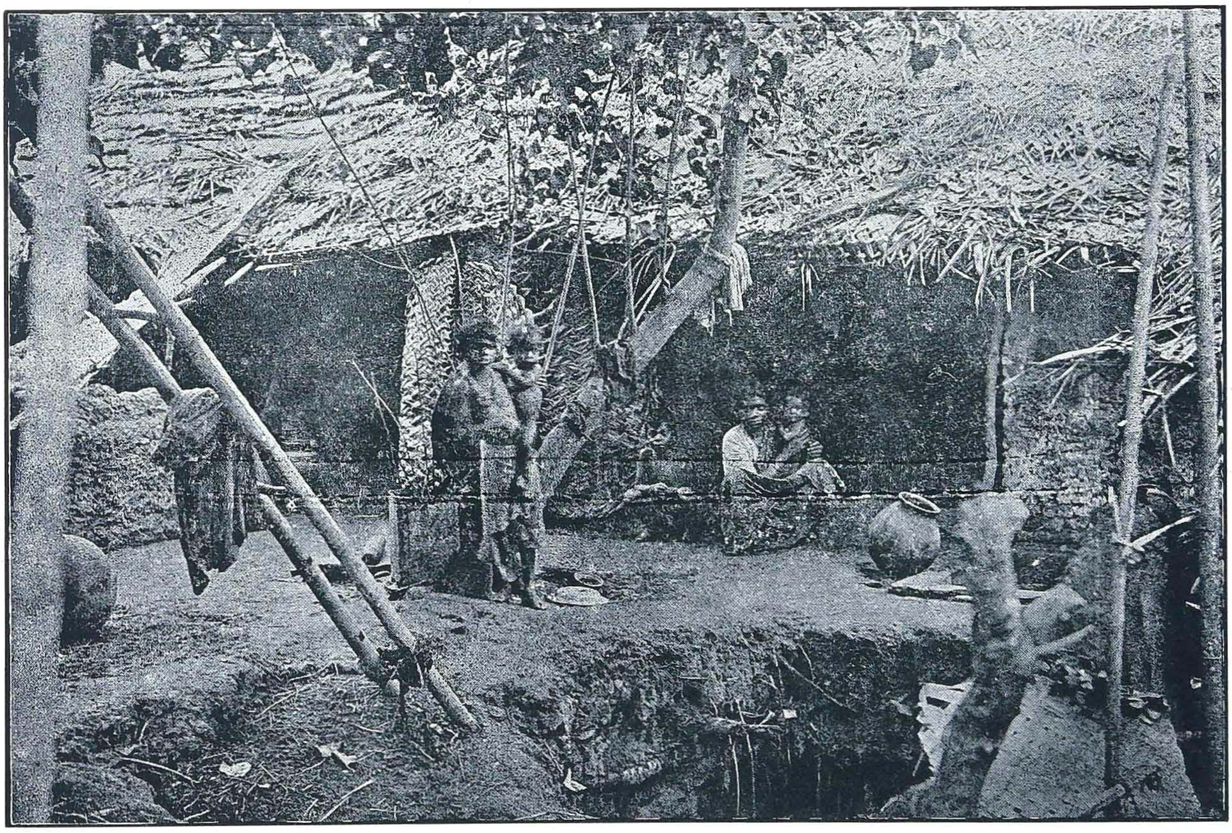
Notice that the room is too dark to be photographed and that a buffalo and a woman are only partly seen. This dark room is the only living and sleeping accommodation available.

DISTRIBUTION OF MILK FOR OUR BABIES.

It is often the tiny tots seen in front who come not only for milk but also to call a Nurse to a case of labour among gosha women. The helplessness of the Gosha women can, therefore, be imagined.



A house in Triplicane where an operation for Breast Abcess was performed, the woman flatly refusing to go into Hospital. In the dark background are doors leading iuto very dark rooms. In front is the latrine and to the right, a well. The woman seated in front has both her legs affected with Elephantiasis, a disease very common in Triplicane.



Two gosha huts where some of our babies were born. The woman seen in the picture survived after a bad attack of Influenzic Pneumonia. Notice the pit in front. Sanitation is unknown in these localities.

A gosha dwelling place to which the Lady Superintendent was summoned by a midwife for a difficult case of labour. In the back-ground is a door leading to a dark room, where a patient, a gosha woman, is lying. She is Tubercular. To the left again in the dark back-ground is another door leading to a still darker room occupied by another family. Tuberculosis affects many an inmate of these little, sunless, airless rooms.

APPENDIX A.

Annual Form A.—Meteorological Data—Madras.

Latitude 13° 4′ N.

Longitude 80° 15′ E.

Months.	Barometer. Mean Daily reading.	Reading of Thermometer. Dry. Maximum.	Dry. Minimum.	Dry. Mean daily range.	Dry. Mean daily value.	Dew Point. Mean daily value.	Mean Maximum Solar radiation.	Difference between dew point temperature and mean air temperature.	Degree of humidity mplete saturation being 100.	Prevailing direction of wind.	Rainfall. Number of days on which rain fell.	Rainfall. Total fall of rain during the month.		Rainfall. Maximum fall of rain during 24 hours.
												Inches.		Inches.
January 1919 ...	29·998	85·3	72·1	13·2	78·3	70·0	150·6	8·3	78	E N E	1	0·37		
February ,, ...	·981	87·7	71·4	16·3	79·7	69·5	154·4	10·2	74	E S E	...	...	2·33	0·37
March ,, ...	·941	88·9	72·0	16·9	80·5	70·4	153·1	10·1	74	S E	2	196		...
April ,, ...	·829	93·6	78·7	14·9	85·3	75·0	155·2	10·3	75	S E by S	...	...		1·72
May ,, ...	·747	99·3	81·3	18·0	88·3	73·2	157·5	15 1	65	S by E	2	0·03	2·52	...
June ,, ...	·669	98·8	80·8	18·0	87·4	70·3	144·7	17·1	61	S W by W	12	2·49		0·02
July ,, ...	·709	94·3	78·2	16·1	84·3	72·8	143·2	11·5	73	S W by S	12	6·16		0·91
August ,, ...	·746	96·5	79 0	17·5	86·0	71·7	150·0	14·3	66	SW by W	8	3·12	16·06	1·25
September ,, ...	·795	91·8	76·9	14·9	83·2	75·4	150·8	7·8	80	S S E	10	6 78		0·97
October ,, ...	·857	89 2	76·3	12·9	81·7	74·7	152·0	7 0	82	N E by N	16	10·80		3·18
November ,, ...	·859	86·2	74·4	11·8	79·5	73·6	145·2	5·9	84	N E	14	12·83	29·87	2·62
December ...	.950	83·4	72·3	11·1	77·2	69·9	141·1	7·3	80	N E by N	13	6·24		3·08
														1·76
											Total 90	50·78		

Annual Form No. 1—Births registered by divisions during the year 1919.

1	2	3			4			5			6	7	8	9			10	11
Old Divisions.	Wards.	Population according to census of 1911.			No. of Births registered from January to 30th September 1919.			Ratio of Births per 1000 of Population.			Number of Males born to every 100 Females born.	Excess of births over deaths per 1000 of Population.	Excess of deaths over births per 1000 of Population.	Mean ratio of Births per 1000 during previous five years.			Still-births.	* Illegitimate births.
		Males.	Females.	Total.	Males.	Females.	Total.	Males	Females,	Total				Males.	Females.	Total.		
1	East Ward	9,768	10,550	20,318	295	294	589	40.2	37.2	38.6	100.3	...	19.9	Not Available.	Not Available.	Not Available.	15	21
2	Centre ,,	20,396	20,239	40,635	676	619	1,295	44.2	40.7	42.5	109.2	...	37.9				64	79
3	West ,,	7,820	7,300	15,120	205	166	371	34.9	30.3	32.7	123.5	...	22.0				18	39
4	East ,,	8,557	6,007	14,564	173	148	321	27.0	32.8	29.4	116.9	...	20.5				11	3
5	Centre ,,	10,132	9,047	19,179	194	213	407	25.6	31.4	28.3	91.1	...	20.2				13	8
6	West ,,	12,027	10,446	22,473	230	214	444	25.4	27.3	26.3	107.5	...	25.0				13	8
7	North ,,	18,410	18,655	37,065	471	426	897	34.1	30.5	32.3	110.6	...	24.3				45	42
8	Centre ,,	14,887	13,698	28,585	260	249	509	23.3	24.2	23.7	104.4	...	23.9				28	34
9	South ,,	11,210	9,727	20,937	203	205	408	24.2	28.1	26.0	99.0	...	31.2				16	19
10	4th Division	13,137	11,842	24,979	329	320	649	33.4	36.1	34.6	102.8	...	14.6				17	12
11	North Ward	21,157	20,366	41,523	630	564	1,194	39.7	36.4	38.3	111.7	...	20.0				26	33
12	Centre ,,	15,172	14,604	29,776	388	376	764	34.8	34.3	34.2	104.5	...	8.5				28	24
13	South ,,	12,430	11,287	23,717	372	333	705	39.9	39.3	39.7	111.7	...	3.7				44	9
14	North ,,	6,216	5,535	11,751	140	125	265	30.1	30.2	30.0	112.0	...	20.8				10	9
15	South ,,	7,622	7,558	15,180	202	194	396	35.3	34.3	34.8	104.1	...	9.5				11	19
16	North ,,	13,601	13,151	26,752	408	386	794	40.0	39.2	39.6	105.7	...	6.8				48	16
17	Centre ,,	19,636	19,007	38,643	573	528	1,101	38.9	37.0	38.0	108.5	...	10.1				59	36
18	South ,,	16,724	16,127	32,851	413	374	787	32.9	30.9	31.9	110.4	...	15.8				40	38
19	East ,,	16,998	17,360	34,358	450	493	943	35.3	37.8	36.6	91.3	...	13.3				30	27
20	West ,,	10,565	9,689	20,254	261	227	488	3 2.	31.3	32.1	114.6	...	5.7				18	18
	Total ...	266,465	252,195	518,660	6,873	6,454	13,327	34.4	34.1	34.3	106.5	...	18.3				554	494

12	13	14			15	16
New Divisions.	Districts.	No. of Births from 1st October to 31st December 1919.			Still births from 1st October to 31st December 1919.	† Illegitimate births from 1st October to 31st December 1919.
		Males.	Females.	Total.		
1	Royapuram	95	111	206	2	2
2	Tondiarpet	100	87	187	20	3
3	Washermanpet	152	117	269	18	10
4	Korukupet	81	90	171	14	9
5	Harbour	83	37	70	1	...
6	Muthialpet	46	49	95	2	...
7	Katchaleeswarampet	62	56	118	5	7
8	Kothawal Bazaar	18	16	34	2	...
9	Ammeu Koil	120	86	206	11	5
10	Seven Wells	110	89	199	7	14
11	Sowcarpet	12	17	29	1	...
12	Peddunaikpet	100	96	196	12	6
13	Travelyan Basin	90	81	171	3	8
14	Esplanade	10	10	20	2	1
15	Park Town	86	84	170	16	3
16	Perambur	136	127	263	21	13
17	Chulai	132	146	278	8	15
18	Purasawakam	118	105	223	5	4
19	Vepery	113	108	221	6	7
20	Egmore	200	163	363	21	10
21	Kilpauk	85	80	165	8	2
22	Nungambakam	87	85	172	7	5
23	Chintadripet	156	149	305	12	9
24	Tiruvateswaranpet	141	136	277	8	6
25	Chepauk	83	86	169	9	4
26	Triplicane	87	87	174	8	15
27	Amir Mahal	83	97	180	14	5
28	Mirsahibpet	118	118	236	10	3
29	Rayapetta	122	116	238	11	3
30	Mylapore	101	103	204	9	4
	Total...	2,877	2,732	5,609	283	173

Note—(1) Total No. of Births during the year 18936 or the Birth rate on Population 36 5.
(2) Mean ratio of Births on population for previous 5 years ... ... 39·1.
* Included in the total births shown in column No. 5. † Included in the total births shown in column 14

Annual Form No. II Statement of Deaths by divisions during the year 1919.

1	2	3	3	4	4	4	5	5	5	6	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	8
Old Divisions	Wards.	Area in square miles.	Average population per square mile.	Population according to census of 1911. Males.	Females	Total.	No. of Deaths registered from January to 30th September 1919. Males.	Fem-ales.	Total.	Number of deaths of males to every 100 deaths of Females.	Deaths per 1,000 of Population from Cholera.	Small-pox.	Measles.	Plague.	Malaria.	Enteric Fever.	Other Fevers.	Dysentery & Diarrhoea.	Tubercle.	Respiratory Diseases.	Injuries.	All other Causes.	All Causes. Males.	Females.	Total.	Mean ratio of deaths per 1000 during previous 5 years.
1	East Ward ...	0·92	22,085	9768	10550	20318	410	482	892	85·1	4 3	3·5	0·5	...	2·1	0·1	4·9	12·0	1 9	4·9	0·1	24·2	55·9	60·9	58·5	Not Available.
2	Centre ,, ...	1·36	29,879	20396	20239	40635	1266	1185	2,451	106·2	3·2	4·5	0·02	...	1·4	0 02	5·4	15·9	3·8	8·6	0·3	37·0	82·8	78·1	80·4	
3	West ,, ...	3 03	4,990	7820	7300	15120	305	316	621	96 5	2·6	4·2	1·8	...	0·9	...	4·6	11·0	1·6	7·8	0·3	22·3	51·9	57·7	54·8	
4	East ,, ...	0·55	26,480	8557	6007	14564	282	270	552	104 4	2·2	1·0	0·5	...	3·0	...	6·7	9·9	3·0	5·4	0·3	18·7	43·9	59·9	50·5	
5	Centre ,, ...	0 21	91,329	10132	9047	19179	325	373	698	87·1	2·6	1·1	0·2	...	1·2	0.3	3·6	7·3	2·9	11·9	...	17·2	42·7	54·9	48·5	
6	West ,, ...	0 24	93,639	12027	10446	22473	390	476	866	81·9	1·9	1·4	0·4	...	1·0	...	1·9	9·0	3·8	14·6	0·2	17·0	43·2	61·2	51·4	
7	North ,, ...	0·42	88,250	18410	18655	37065	756	817	1573	92·5	1·7	1·5	0·1	...	3·2	0·1	4·1	11·2	2·9	9·7	...	22·0	58·7	58·5	56·6	
8	Centre ,, ...	0·24	119,104	14887	13698	28585	489	533	1022	91 7	1·7	1·0	...	...	3·7	0·1	3·6	6·9	2·3	9·1	...	19·2	43 8	51·1	47·7	
9	South ,, ...	0·36	58,158	11210	9727	20937	467	431	898	108·3	0·8	0·5	0·1	...	2·9	0·3	8·5	6·0	4 3	10·2	0·8	22 6	55·5	59·1	73·1	
10	4th Division...	3·88	6,438	13137	11842	24979	513	500	1013	102 6	1·0	0·4	0·09	...	1·6	0·04	4·3	16·5	2·0	6·8	0·6	20·9	52·1	55·7	54·1	
11	North Ward ...	0 70	59,319	21157	20366	41523	911	907	1818	100·4	1·4	0·9	0·1	...	1·5	0·1	7·0	15·9	2·6	6·0	0·5	22·3	57·4	59·4	58·4	
12	Centre ,, ...	0 95	31,343	15172	14604	29776	447	506	953	88·3	0·9	0·1	0·1	...	1·8	0.2	5·4	8·3	2·3	6.5	...	16 9	29·3	46·2	42·7	
13	South ,, ...	1·16	20,446	12430	11287	23717	377	393	770	95·9	0·6	0·5	0·3	...	0·6	0·04	3·2	8·8	1·9	6·7	0·5	20·2	40·4	46·4	43·4	
14	North ,, ...	2·40	4,896	6216	5535	11751	253	195	448	129·7	0·8	0·1	0·09	...	0·3	0·3	4·0	18·0	3·5	5·1	0·4	18·4	54·2	47·0	50·8	
15	South ,, ...	1·76	8,625	7622	7558	15180	244	261	505	93·5	1·6	1·4	0·07	...	0·1	0·07	5·3	12·2	2·9	4·4	0·5	16·0	42·6	46·0	44.3	
16	North ,, ...	0·36	74,311	13601	13151	26752	465	466	931	99·8	1·1	0·6	0·4	...	0·7	0·04	2·0	8·7	2·6	7 0	0·3	22·9	45·6	47·1	46.4	
17	Centre ,, ...	1·83	21,116	19636	19007	38643	683	711	1394	96·1	1·2	1·0	0 3	0 1	0·7	0·2	0·6	10·5	3·0	5·9	0·5	21·4	46·3	49·7	48·1	
18	South , ...	0·72	45,626	16724	16127	32851	584	593	1177	98·5	1·2	3.5	0·8	0·3	0·3	0·2	3·9	10·1	2·0	4·9	0·5	20·1	46·5	49·6	47·8	
19	East ,, ...	2·64	13,014	16998	17360	34358	645	642	1287	100·5	1·4	0·6	0·3	...	0·6	0·03	6·2	14·9	1·6	5·4	0·1	18·9	50·1	49·3	49·9	
20	West ,, ...	3·90	5,193	10565	9689	20254	270	304	574	88·8	0·2	0·3	0·2	...	0·4	...	4·6	11·6	1·2	4·4	0.05	14·7	34·1	41·8	37·8	
	Total ...	27·6	18,792	266,465	252,195	518,660	10,082	10,361	20,443	97·3	1.6	1·5	0·2	0 03	1·4	0·1	4·7	8·6	2·6	7·3	0·3	21·4	50·4	54·8	52·6	

9	10	1	1	1
New Divisions.	Districts.	No. of Deaths from October to 31st December 1919. Males.	Females.	Total.
1	Royapuram ...	102	118	220
2	Tondiarpet ...	210	154	364
3	Washermanpet...	130	152	282
4	Korukupet ...	113	90	203
5	Harbour ...	61	40	101
6	Muthialpet ...	55	81	136
7	Katchaleswaranpet...	85	90	175
8	Kothawal Bazaar	54	40	94
9	Amman Koil ...	121	132	253
10	Seven Wells ...	129	146	275
11	Sowcarpet ...	48	57	105
12	Peddunaikpet...	122	156	278
13	Trevelyan Basin	113	123	236
14	Esplanade ...	57	39	96
15	Park Town ...	138	148	286
16	Perambur ...	181	144	325
17	Chulai ...	150	175	325
18	Purasawalkam ...	116	104	220
19	Vpeery ...	140	125	265
20.	Egmore ...	130	147	277
21	Kilpauk ...	110	90	200
22	Nungambaıkam.	88	83	171
23	Chintadripet ...	177	143	320
24	Tiruvateswaranpet...	164	143	307
25	Chepauk ...	89	94	183
26	Triplicane ...	88	78	166
27	Amirmahal ...	114	105	219
28	Mirsahibpet ...	120	117	237
29	Rayapettah ...	135	122	257
30	Mylapore ...	80	88	168
	Total ...	3,420	3,324	6,744

Note—(1) Total No. of deaths during the year 27,187 or the death rate on population 52·4
(2) Mean ratio of deaths on population for previous 5 years ....43·2

Annual Form No. III—Deaths registerd by divisions during each month of the year 1919

1	2	3									4	5	6	7			8
Old Divisions	Wards.	January.	February.	March.	April.	May.	June.	July.	August.	September.	Total for 9 months.	New Divisions.	Districts.	October.	November.	December.	Total for 3 months.
1	East Ward ...	238	93	86	77	75	71	83	89	75	892	1	Royapuram ...	57	79	84	220
2	Centre " ...	601	236	243	186	179	236	270	263	187	2,451	2	Pondiarpet ...	99	132	133	364
3	West " ...	138	64	62	69	60	50	66	69	43	621	3	Washermanpet ...	84	83	115	282
4	East " ...	102	67	38	48	65	64	72	51	45	552	4	Korukupet ...	60	73	70	203
5	Centre " ...	155	55	69	53	67	59	91	82	67	698	5	Harbour ...	31	33	37	101
6	West " ...	175	79	80	64	115	83	103	96	71	866	6	Muthialpet ...	39	55	42	136
7	North " ...	262	151	135	137	184	158	221	189	136	1,573	7	Katchaleswaranpet ..	55	47	73	175
8	Centre " ...	189	110	100	79	125	78	124	129	88	1,022	8	Kothawal Bazaar ..	26	40	28	94
9	South "	141	75	68	72	90	104	120	136	92	898	9	Amman Koil ...	73	93	87	253
10	4th Division ...	178	114	112	97	102	93	102	132	83	1,013	10	Seven Wells ...	73	94	108	275
11	North Ward ..	300	206	162	175	211	146	196	252	170	1,818	11	Sowcarpet ...	32	34	39	105
12	Centre " ...	143	123	93	84	82	93	109	119	102	953	12	Peddunaikpet ...	73	92	113	278
13	South " ...	109	85	97	62	74	78	97	104	64	770	13	Trevelyan Basin ..	79	65	92	236
14	North " ...	50	57	43	39	58	38	62	55	46	448	14	Esplanade ...	20	31	45	96
15	South " ...	99	61	43	38	31	34	58	83	58	505	15	Park Town ...	74	105	107	286
16	North " ...	140	100	93	103	110	81	116	109	74	931	16	Perambur ...	108	109	108	325
17	Centre " ...	222	147	173	115	138	124	150	202	123	1,394	17	Chulai ..	81	116	128	325
18	South " ...	196	146	131	96	109	109	147	160	83	1,177	18	Purasawakam ...	55	63	97	220
19	East " ...	237	188	113	121	123	98	112	186	109	1,287	19	Vepery ...	81	80	104	265
20	West " ...	105	86	68	53	30	39	72	69	52	574	20	Egmore ...	77	94	106	277
												21	Kilpauk ...	40	68	83	200
												22	Nungambakam ...	51	58	62	171
												23	Chintadripet ...	92	112	116	320
												24	Tiruvateswaranpet ..	75	118	114	307
												25	Chepauk ..	62	56	65	183
												26	Triplicane ...	51	53	62	166
												27	Amir Mahal ...	51	84	84	219
												28	Mirsahibpet ...	57	83	97	237
												29	Rayapetta ...	77	86	94	257
												30	Mylapore ...	43	65	60	168
	Total ...	3,780	2,293	2,014	1,768	2,028	1,841	2,376	2,575	1,768	20,443		Total ...	1,885	2,306	2,553	6744

Annual Form No. IV.-A—Deaths registered according to age by divisions from January to 30th September 1919.

1	2	3		4		5		6		7		8		9		10		11		12	
Old. Divisions.	Wards.	Under 1 year.		1 year and under 5 years.		5 years and under 10 years.		10 years and under 15 years.		15 years and under 20 years.		20 years and under 30 years		30 years and under 40 years.		40 years and under 50 years.		50 years and under 60 years.		60 years and upwards.	
		Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
1	East Ward ...	117	126	77	84	27	42	11	10	13	11	28	59	26	39	30	25	24	14	57	72
2	Centre ,, ..	259	237	234	226	65	69	44	27	32	45	133	135	135	89	102	76	77	56	185	225
3	West ,, ...	64	67	74	74	10	18	9	9	6	18	28	41	30	14	17	18	17	11	50	46
4	East ,, ...	69	47	49	55	14	10	6	13	6	12	23	30	32	18	28	21	22	18	33	46
5	Centre ,, ...	64	86	44	53	22	19	14	11	4	11	30	35	33	33	27	27	21	19	61	74
6	West ,, ...	93	85	72	83	16	28	11	26	14	15	31	43	40	38	32	31	24	30	57	92
7	North ,, ...	188	145	139	123	38	26	16	23	16	45	54	111	66	78	62	62	57	53	120	151
8	Centre ,, ...	114	91	92	85	24	18	15	17	14	30	37	78	29	45	33	32	46	39	80	98
9	South ,, ...	85	75	60	56	22	16	10	10	9	22	65	61	51	52	34	28	52	36	79	75
10	4th Division ...	74	63	63	61	55	55	48	48	46	40	43	40	35	42	38	47	45	45	66	59
11	North Ward ..	122	122	125	124	106	113	92	78	81	85	78	74	73	66	65	77	67	74	102	100
12	Centre ,, ...	140	113	97	85	17	27	10	15	8	24	33	50	26	37	26	34	25	27	65	94
13	South ,, ..	107	108	53	64	14	11	6	15	15	17	26	49	32	26	26	22	27	12	71	69
14	North ,, ...	58	34	31	42	10	10	7	3	7	8	25	23	34	19	22	9	25	10	34	37
15	South ,, ..	75	48	38	47	12	15	6	6	1	9	16	32	16	26	20	15	13	11	47	52
16	North ,, ...	119	111	105	100	18	26	17	8	10	13	33	53	33	26	27	19	25	20	78	90
17	Centre ,, ...	195	169	117	106	30	29	19	18	17	19	40	86	55	52	54	42	39	24	117	166
18	South ,, ...	153	134	114	135	40	27	21	21	10	29	40	42	25	38	40	22	38	24	103	121
19	East ,, ...	176	166	130	115	26	43	15	20	20	12	57	67	50	50	35	42	36	26	100	101
20	West ,, ...	76	79	35	64	18	11	7	11	13	8	25	20	20	16	11	21	13	22	52	50
	Total of Annual Form No. IV-A.	2,348	2,106	1,749	1,782	584	613	384	389	342	467	845	1,134	846	809	734	670	693	573	1,557	1,818
	Total of Annual Form No. IV-B.	970	806	532	532	172	182	92	88	89	138	263	324	272	222	250	195	221	172	559	665
	Grand total ...	3,318	2,912	2,281	2,314	756	795	476	477	431	605	1,108	1,458	1,118	1,031	984	865	914	745	2,116	2,483
	Ratio per 1,000 ...	340·3	317·0	104·9	104·4	26·4	27·4	17·2	19·0	17·3	23·3	20·5	28·5	27·1	28·6	31·9	32·2	51·4	45·4	160·9	194·1

In the case of children under one year of age, the rates are calculated on the number of live-births during the year, in all other cases on the number living at the time of the census of 1911.

Annual Form No. IV-B.—Deaths regsitered according to age by divisions from October to 31st December 1919.

1	2	3		4		5		6		7		8		9		10		11		12	
Present Divisions.	Districts.	Under one year.		1 year and under 5 years.		5 years and under 10 years.		10 years and under 15 years.		15 years and under 20 years.		20 years and under 30 years.		30 years and under 40 years.		40 years and under 50 years.		50 years and under 60 years.		60 years and upwards.	
		Males.	Females.	Males.	Females.	Males.	Females	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
1	Royapuram	33	38	16	24	2	2	1	3	4	2	8	7	8	7	6	7	3	5	21	23
2	Tondiarpet	39	30	16	26	5	4	3	1	11	5	15	11	34	13	33	15	16	8	37	42
3	Washermanpet	47	39	23	24	11	5	4	4	3	6	10	15	5	15	5	6	7	6	15	32
4	Korukupet	34	21	14	13	6	4	3	...	3	3	10	10	11	7	8	4	6	5	18	23
5	Harbour	14	9	9	6	3	...	1	...	...	1	5	3	6	6	7	1	2	1	14	13
6	Muthialpet	17	14	11	10	6	4	2	2	2	2	4	12	...	7	3	5	7	7	3	18
7	Katchaleswaranpet ...	27	28	13	12	4	2	3	3	...	4	12	8	4	2	8	8	5	1	9	22
8	Kothawal Bazaar	16	11	9	5	...	2	2	...	2	2	5	6	3	2	3	1	3	5	11	6
9	Amman Koil	37	24	16	11	8	8	...	2	5	9	7	17	8	14	8	5	8	8	24	34
10	Seven Wells	33	30	18	20	8	9	...	5	1	9	7	18	9	13	9	10	7	9	37	23
11	Sowcarpet	10	10	7	12	...	3	...	4	2	1	3	6	4	2	2	3	7	3	13	13
12	Peddunaikpet	44	28	15	25	6	8	3	6	...	7	10	17	9	12	6	10	8	7	21	36
13	Trevelyan Basin	32	33	25	23	3	7	1	1	1	4	6	10	7	8	9	4	16	5	13	28
14	Esplanade	5	4	2	6	3	...	3	2	1	1	10	6	12	5	7	6	7	...	8	9
15	Park Town	48	42	20	22	2	5	2	3	2	7	13	22	12	8	12	9	10	5	17	25
16	Perambur	29	21	27	17	19	14	17	10	10	15	13	11	13	9	13	15	16	10	24	22
17	Chulai	48	41	19	30	11	14	8	6	6	2	10	17	10	12	7	5	6	10	25	38
18	Purasawakam	19	14	13	9	11	11	7	10	10	8	4	6	8	9	9	9	15	10	20	17
19	Vepery	41	33	32	28	9	6	2	4	4	7	10	15	10	6	7	8	9	2	16	16
20	Egmore	48	33	24	23	7	12	...	1	...	7	9	16	10	10	8	10	7	9	17	26
21	Kilpauk	24	21	10	17	4	3	2	3	1	4	14	6	15	7	16	7	7	2	17	20
22	Nungambakam	21	22	20	14	4	6	2	4	...	1	10	3	4	5	4	8	7	4	16	16
23	Chintadripet	58	51	30	21	7	13	4	2	8	3	19	16	12	5	9	2	4	5	26	25
24	Tiruvateswaranpet ...	48	45	23	21	8	6	3	3	3	6	13	9	11	8	8	6	8	10	39	29
25	Chepauk	24	28	18	13	1	6	1	1	2	2	7	14	9	7	6	3	5	5	16	15
26	Triplicane	26	17	13	16	4	6	2	3	2	5	5	9	7	4	7	2	6	5	16	11
27	Amir Mahal	33	32	21	22	7	6	3	2	1	1	7	10	10	3	7	5	4	4	21	20
28	Mirsahibpet	44	31	27	21	7	4	4	1	...	3	7	6	6	7	5	12	5	8	15	23
29	Rayapetta	41	28	27	29	1	6	7	2	4	4	8	13	10	5	12	5	8	8	17	22
30	Mylapore	30	28	14	12	5	6	2	...	1	7	2	5	5	4	6	4	2	4	13	18
	Total ...	970	806	532	532	172	182	92	88	89	138	263	324	272	222	250	195	221	172	559	665

Annual Form No. V:—Deaths registered according to Class by divisions during the year 1919.

1	2	3					4					5				
Old Divisions.	Wards.	Population according to census of 1911.					Number of deaths registered from January to 30th September 1919.					Ratio of deaths per 1000 of Population.				
		Christians.	Hindus.	Mahomedans.	Others.	Total.	Christians.	Hindus.	Mahomedans.	Others.	Total.	Christians.	Hindus.	Mahomedans.	Others.	Total.
1	East Ward ...	5,271	13,976	1,015	56	20,318	149	676	66	1	892	37·8	64·5	86·7	17·9	58·5
2	Centre ,, ...	1,151	36,276	3,196	12	40,635	66	2,196	189	...	2,451	76·5	80·7	78·8	...	80·4
3	West ,, ...	327	12,502	2,193	98	15,120	11	512	97	1	621	45·9	54·6	58·8	10·2	54·8
4	East ,, ...	540	9,199	4,771	54	14,564	8	318	225	1	552	20·4	46·1	62·9	18·5	50·5
5	Centre ,, ...	2,672	15,477	965	65	19,179	57	619	22	...	698	28·4	53·3	30·1	...	48·5
6	West ,, ...	2,421	15,951	4,087	14	22,473	38	679	149	...	866	21·1	56·7	48·7	...	51·4
7	North ,, ...	1,891	33,769	1,357	48	37,065	40	1,473	60	...	1,573	28·0	58·2	59·0	...	56·6
8	Centre ,, ...	90	27,625	388	482	28,585	3	1,018	1	...	1,022	44·4	49·1	2·6	...	47·7
9	South ,, ...	962	19,634	276	65	20,937	36	849	13	...	898	49·9	57·7	61·6	...	73·1
10	4th Division ...	815	18,981	5,139	44	24,979	22	789	202	...	1,013	35·6	55·4	52·3	...	54·1
11	North War	4,176	36,638	643	66	41,523	131	1,646	41	...	1,818	41·9	59·9	85·5	...	58·4
12	Centre ,, ...	5,144	22,629	1,798	205	29,776	119	771	62	1	953	30·9	45·4	46·2	4·9	42·7
13	South ,, ...	4,176	17,399	2,053	89	23,717	115	596	59	...	770	36·6	45·7	38·5	...	43·4
14	North ,, ...	1,372	10,105	270	4	11,751	30	402	16	...	448	29·2	53·0	77·8	...	50·8
15	South ,, ...	2,141	11,589	1,384	66	15,180	55	395	55	...	505	34·1	45·5	52·7	...	44·3
16	North ,, ...	2,356	23,023	1,324	49	26,752	66	803	62	...	931	37·4	46·5	62·7	...	46·4
17	Centre ,, ...	483	23215	14,934	11	38,643	4	825	565	...	1,394	10·3	47·4	50·4	...	48·1
18	Centre ,, ...	572	24738	7,490	51	32,851	17	820	340	...	1,177	40·2	44·2	60·5	...	47·8
19	East ,, ...	2,806	26,006	5,274	272	34,358	94	961	231	1	1,287	44·5	49·4	58·4	3.7	49·9
20	West ,, ...	2,446	17,178	612	18	20,254	64	495	15	...	574	34·8	38·4	32·7	...	37·8
	T tal ...	41,812	415,910	59,169	1,769	518,660	1,125	16,843	2,470	5	20,443	35.9	54·0	55·7	4·0	52·6

6	7	8				
New Divisions.	Districts.	Number of deaths registered from Octol er to 31st December 1919.				
		Christians.	Hindus.	Mahomedans.	Others.	Total.
1	Royapuram ...	50	155	15	...	220
2	Tondiarpet ...	5	319	40	...	364
3	Washermanpet ...	9	256	17	...	282
4	Korukupet ...	2	166	35	...	203
5	Harbour ...	1	36	64	...	101
6	Muthialpet ...	2	127	7	...	136
7	Kachaleswaranpet	13	153	9	...	175
8	Kothawal Bazaar...	1	87	6	...	94
9	Ammen Koil ...	19	198	36	...	253
10	Seven Wells ...	19	245	11	...	275
11	Sowcarpet ...	...	105	...	...	105
12	Peddunaickpet. ...	...	274	4	...	278
13	Trevelyan Basin...	3	233	...	...	236
14	Esplanade ...	7	86	3	...	96
15	Park Town ...	7	279	...	...	286
16	Perambur ...	7	240	78	...	325
17	Chulai ...	12	306	7	...	325
18	Purasawakam ...	14	200	6	...	220
19	Vepery ...	43	205	17	...	265
20	Egmore ...	48	209	20	...	277
21	Kilpauk ...	18	171	11	...	200
22	Nungambaukam ...	20	138	11	2	171
23	Chintadripet ...	27	272	21	...	320
24	Tiruvatteswaranpet	2	179	126	...	307
25	Chepauk ...	1	116	66	...	183
26	Triplicane ...	1	162	3	...	166
27	Amir Mahal ...	8	123	86	2	219
28	Mirsahibpet ...	2	175	60	...	237
29	Rayapettah ...	21	218	18	...	258
30	Mylapore ...	24	138	6	...	168
	Total ...	386	5,571	783	4	6,744

Annual Form No. VI—Deaths registered from "Cholera" by divisions during each month of the year 1919.

1	2	3									4			5			6
Old Divisions.	Wards.	January.	February.	March.	April.	May.	June.	July.	August.	September.	Total No. of deaths Registered from January to 30th Sept. 1919. Males.	Females.	Total.	Ratio of deaths per 1,000 of population. Males.	Females.	Total.	Mean Ratio per 1 000 during the previous 5 years.
1	East Ward ...	65	...	..	...	...	...	...	1	...	31	35	66	4·2	4·5	4·3	Not available.
2	Centre ,, ...	78	8	2	...	4	3	1	1	...	43	54	97	2·8	3·6	3·2	
3	West ,, ...	24	1	...	...	4	1	...	...	...	15	15	30	2·6	2·1	2·6	
4	East ,, ...	10	3	2	...	5	2	1	...	1	13	11	24	2·0	2·5	2·2	
5	Centre ,, ...	29	2	1	1	...	...	...	2	...	22	13	35	2·9	1·9	2·6	
6	West ,, ...	22	3	...	...	6	...	...	1	...	17	15	32	1·9	1·9	1·9	
7	North ,, ...	17	2	3	1	17	3	4	...	1	25	23	48	1·1	1·7	1·7	
8	Centre ,, ...	13	1	...	1	20	...	1	...	...	18	18	36	1·6	1·8	1·7	
9	South ,, ...	5	...	...	...	5	...	1	1	1	5	8	13	0·6	1·1	0·8	
10	4th Division ...	15	4	...	...	...	...	...	...	...	2	17	19	0·2	1·9	1·0	
11	North Ward ...	21	8	...	...	11	...	...	5	...	20	25	45	1.3	1·1	1·4	
12	Centre ,, ...	12	7	...	...	...	...	1	1	...	11	10	21	1·0	0·9	0·[illegible]	
13	South ,, ...	5	...	...	...	1	2	2	...	...	5	5	10	0·6	0·6	0·6	
14	North ,, ...	3	1	...	...	2	...	...	1	...	4	3	7	0·8	0·7	0·8	
15	South	10	3	1	...	2	2	...	...	...	8	10	18	1·4	1·7	1·6	
16	North ,, ...	7	1	...	...	12	...	1	...	...	10	11	21	1·0	1·1	1·1	
17	Centre ,, ...	8	11	7	...	3	2	5	...	...	18	18	36	0·7	1·3	1·2	
18	South ,, ...	9	7	2	...	7	...	2	1	1	18	11	29	0·8	0·9	1·2	
19	East ,, ...	16	13	...	...	6	1	...	...	...	12	24	36	0·9	1·8	1·4	
20	West ,, ...	3	...	1	...	...	...	...	...	...	1	3	4	0·09	0·4	0·2	
	Total ...	372	75	19	3	105	16	19	14	4	298	329	627	1·1	1·7	1·6	

7	8	9			10		
Present Divisions.	Districts.	October.	November.	December.	Total No. of deaths Registered from October to 31st December 1919. Males.	Females.	Total.
1	Royapuram ...	1	...	...	1	...	1
2	Tondiarpet ...	...	...	1	1	...	1
3	Washermanpet ...	...	...	...	...	...	...
4	Korukupet ...	...	...	...	...	...	...
5	Harbour ...	...	...	...	...	...	...
6	Muthialpet ...	...	...	...	...	...	...
7	Katchaleswaranpet ...	...	...	...	...	...	...
8	Kothawal Bazaar ...	...	...	...	...	...	...
9	Amman Koil ...	...	...	...	...	...	...
10	Seven Wells ...	...	...	...	...	...	...
11	Sowcarpet ...	...	...	...	...	...	...
12	Peddunaikpet ...	...	...	1	...	1	1
13	Trevelyan Basin ...	...	...	...	...	...	...
14	Esplanade ...	...	...	...	...	...	...
15	Park Town ...	...	...	...	...	...	...
16	Perambur ...	1	...	2	2	1	3
17	Chulai ...	...	...	...	...	...	...
18	Purasawakam ...	...	...	...	...	...	...
19	Vepery ...	...	...	2	2	...	2
20	Egmore ...	...	...	1	1	...	1
21	Kilpauk ...	...	1	...	1	...	1
22	Nungambakam ...	...	...	1	1	...	1
23	Chintadripet ...	1	...	...	1	...	1
24	Tiruvatesvaranpet ...	...	...	...	...	...	...
25	Chepauk ...	...	...	1	1	...	1
26	Triplicane ...	...	...	...	...	...	...
27	Amir Mahal ...	...	...	...	...	...	...
28	Mirsahibpet ...	...	...	2	1	1	2
29	Rayapetta ...	...	...	...	...	...	...
30	Mylapore ...	...	...	...	...	...	...
	Total ...	3	1	11	12	3	15

Note.—(1) Total No. of Deaths from Cholera during the year 642 or the death rate on population 1·2

(2) Mean ratio of deaths from Cholera on population for previous 5 years ... ... 0·9

Annual Form No. VII—Deaths registered from "Small-pox" by divisions during each month of the year 1919.

1	2	3									4			5			6
Old Divisions.	Wards.	January.	February.	March.	April.	May.	June.	July.	August.	September.	Total No. of deaths Registered from January to 30th Sept. 1919. Males.	Females.	Total.	Ratio of deaths per 1,000 of population. Males.	Females.	Total.	Mean Ratio per 1,000 during the previous 5 years.
1	East Ward ...	1	4	10	5	1	8	12	7	5	26	27	53	3·7	3·4	3·5	Not available.
2	Centre ...	24	12	31	21	11	17	12	6	2	75	61	136	4·1	4·0	4·5	
3	West ...	6	6	10	11	2	4	4	3	1	27	20	47	4·6	3·7	4·2	
4	East ...	...	...	...	...	3	3	4	...	1	10	1	11	1·5	0·2	1·0	
5	Centre ...	1	...	1	3	2	2	6	1	...	9	7	16	1·2	1·0	1·1	
6	West ...	1	3	1	2	5	4	4	4	1	9	16	25	1·0	2·0	1·4	
7	North ...	3	5	2	8	6	5	7	4	1	22	19	41	1·6	1·3	1·5	
8	Centre ...	...	4	3	3	3	1	5	1	1	10	11	21	0·8	1·1	1·0	
9	South ...	...	1	...	...	...	1	2	4	...	3	5	8	0·4	0·7	0·5	
10	4th Division ...	...	2	2	1	1	...	...	...	1	5	2	7	0·5	0·3	0·4	
11	North Ward ...	2	1	4	9	1	5	4	1	1	17	11	28	1·1	0·7	0·9	
12	Centre ...	...	...	...	...	...	1	...	1	1	2	1	3	1·0	0·07	0·1	
13	South ...	2	...	1	4	...	...	1	...	...	3	5	8	0·3	0·6	0·5	
14	North ...	...	...	...	...	1	...	...	...	...	1	...	1	0·2	...	0·1	
15	South ...	...	...	3	3	4	3	3	...	...	6	10	16	1·0	1·7	1·4	
16	North ...	1	1	...	5	2	1	3	...	.	4	9	13	0·4	0·9	0·6	
17	Centre ...	1	4	8	4	1	2	7	1	1	18	11	29	1·2	0·8	1·0	
18	South ...	3	11	19	3	2	10	25	11	3	51	36	87	4·1	3·0	3·5	
19	East ...	2	2	1	2	1	1	3	2	...	6	8	14	0·5	0·6	0·6	
20	West ...	1	2	1	...	...	1	...	...	...	2	3	5	0·3	0·4	0·3	
	Total ...	48	58	97	84	46	69	102	46	19	306	263	569	1·5	1·4	1·5	

7	8	9			10		
Present Divisions.	Districts.	October.	November.	December.	Total No. of deaths Registered from October to 31st December 1919. Males.	Females.	Total.
1	Royapuram ...	1	...	2	...	3	3
2	Tondiarpet ...	...	...	...	...	...	...
3	Washermanpet ...	...	...	1	...	1	1
4	Korukupet ...	...	...	...	...	...	...
5	Harbour ...	3	1	...	4	...	4
6	Muthialpet ...	1	1	2	...	4	4
7	Katchaleswaranpet ...	1	2	7	6	4	10
8	Kothuawal Bazaar ...	...	...	...	...	...	...
9	Ammen Koil ...	1	...	1	1	1	2
10	Seven Wells ...	1	1	1	1	2	3
11	Sowcarpet ...	...	...	...	...	...	...
12	Peddunaikpet ...	...	...	...	...	...	...
13	Trevelyan Basin ...	...	1	1	1	1	2
14	Esplanade ...	1	1	...	1	1	2
15	Park Town ...	...	...	...	...	...	...
16	Perambur ...	...	...	...	...	...	...
17	Chulai ...	...	2	...	2	...	2
18	Purasawakam ...	...	...	...	...	...	...
19	Vepery ...	2	...	1	1	2	3
20	Egmore ...	...	...	...	...	...	...
21	Kilpauk ...	...	...	...	...	...	...
22	Nungambakam ...	...	...	...	...	...	...
23	Chintadripet ...	...	1	...	1	...	1
24	Tiruvateswaranpet ..	...	...	...	...	...	...
25	Chepauk ...	...	...	...	...	...	...
26	Triplicane ...	1	1	...	...	2	2
27	Amir Mahal ...	2	...	...	2	...	2
28	Mirsahibpet ...	...	...	...	...	...	...
29	Rayapettah ...	1	...	...	...	1	1
30	Mylapore ...	...	...	...	...	...	...
	Total ...	15	11	16	20	22	42

Note.—(1) Total No. of deaths from Small-pox during the year 611 or the death rate on population 1·2

(2) Mean ratio of deaths from Small-pox on population for previous 5 years ... ... 0·4

Annual Form No. VIII—Deaths registered from "Measles" by divisions during each month of the year 1919.

1	2	3									4			5			6	7	8	9			10		
Old Divisions.	Wards.	January.	February.	March.	April.	May.	June.	July.	August.	September.	Total No. of deaths Registered from January to 30th September 1919.			Ratio of deaths per 1,000 of population.			Mean Ratio per 1000 during the previous 5 years.	Present Divisions.	Districts.	October.	November.	December.	Total No. of deaths Registered from October to 31st December 1919.		
											Males.	Females.	Total.	Males.	Females.	Total.							Males.	Females.	Total
1	East Ward ...	...	1	3	...	...	1	2	...	1	2	6	8	0·3	0·8	0·5	Not available.	1	Royapuram ...	...	...	...	...	...	...
2	Centre ...	1	...	...	...	...	...	...	...	...	...	1	1	...	0·05	0·02		2	Tondiarpet ...	1	...	...	...	1	1
3	West ...	2	...	...	...	...	...	...	...	...	1	1	2	0·1	0·1	1·8		3	Washermanpet ...	1	...	...	...	1	1
4	East ...	...	...	1	1	...	...	1	1	1	2	3	5	0·4	0·7	0·5		4	Korukupet ...	...	...	...	...	...	...
5	Centre ...	...	...	...	...	...	...	2	...	...	2	...	2	0·3	...	0·2		5	Harbour ...	1	...	1	...	2	2
6	West ...	...	...	...	...	1	3	1	1	1	3	4	7	0·3	0·5	0·4		6	Muthialpet ...	...	...	...	...	...	...
7	North ...	...	...	...	1	...	...	1	1	...	2	1	3	0·2	0·05	0·1		7	Kachaleswaranpet ...	...	...	...	...	...	...
8	Centre ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		8	Kothwal Bazaar ...	...	...	...	...	...	...
9	South ...	1	...	...	...	...	1	...	...	...	...	2	2	...	0·3	0·1		9	Ammen Koil ...	...	...	...	...	...	...
10	4th Division ...	...	...	...	...	...	1	...	...	...	1	...	1	0·08	...	0·09		10	Seven Wells ...	...	...	...	...	...	...
11	North Ward ...	...	...	...	1	1	1	1	...	...	2	2	4	0·1	0·1	0·1		11	Sowcarpet ...	...	...	...	...	...	...
12	Centre ...	...	...	...	...	...	1	...	...	1	...	2	2	...	0·2	0·1		12	Peddunaickenpet ...	...	...	...	...	...	...
13	South ...	...	...	3	1	...	...	1	...	...	2	3	5	0·2	0·4	0·3		13	Trevelyan Basin ...	...	...	...	...	...	...
14	North ...	...	...	...	...	1	...	...	...	...	...	1	1	...	0·2	0·09		14	Esplanade ...	...	...	...	...	...	...
15	South ...	...	...	...	1	...	...	...	...	...	1	...	1	0·1	...	0·07		15	Park Town ...	...	...	...	...	...	...
16	North ...	1	...	2	2	3	...	...	1	...	3	6	9	0·3	0·6	0·4		16	Perambur ...	...	...	...	...	...	...
17	Centre ...	2	1	1	3	...	1	1	1	...	3	7	10	0·2	0·5	0·3		17	Chulai ...	...	...	...	...	...	...
18	South ...	4	1	5	3	4	2	1	...	...	8	12	20	0·7	1·0	0·8		18	Purasawakam ...	...	...	1	...	1	1
19	East ...	...	1	1	...	1	1	2	1	...	6	1	7	0·5	0·06	0·3		19	Vepery ...	1	...	...	...	1	1
20	West ...	1	...	1	1	...	...	...	...	...	1	2	3	0·09	0·3	0·2		20	Egmore ...	...	1	1	2	...	2
																		21	Kilpauk ...	...	...	...	...	...	...
																		22	Nungambakkam ...	1	...	...	1	...	1
																		23	Chintadripet ...	...	...	...	...	...	...
																		24	Tiruvatteeswaranpet..	...	...	...	...	...	...
																		25	Chepauk ...	...	...	1	...	1	1
																		26	Triplicane	2	2	...	1	3	4
																		27	Amir Mahal ...	1	...	...	...	1	1
																		28	Mirsahibpet ...	...	...	...	...	...	...
																		29	Royapettah ...	...	...	...	...	...	...
																		30	Mylapore ..	...	...	...	...	...	...
	Total ...	12	4	17	14	11	12	13	6	4	39	54	93	0·2	0·3	0·2			Total ...	8	3	4	4	11	15

Note.—(1) Total No. of deaths from Measles during the year 108 or the death rate on population 0·2

(2) Mean ratio of deaths from Measles on population for previous 5 years ... ... 0·2

Annual Form No. IX—Deaths Registered from "Plague" by divisions during each month of the year 1919.

1	2	3									4			5			6	7	8	9			10		
Old Divisions.	Wards.	January.	February.	March.	April.	May.	June.	July.	August.	September.	Total No. of deaths Registered from January to 30th Sept. 1919.			Ratio of deaths per 1,000 of population.			Mean Ratio per 1,000 during the previous 5 years.	Present Divisions.	Districts.	October.	November.	December.	Total No. of deaths. Registered from October to 31st December 1919.		
											Males.	Females.	Total.	Males	Females.	Total.							Males.	Females.	Total.
1	East Ward ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	Not available.	1	Royapuram ...	...	...	...	...	...	...
2	Centre ,, ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		2	Tondiarpet ...	...	...	...	...	...	...
3	West ,, ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		3	Washermanpet ...	...	...	...	...	...	...
4	East ,, ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		4	Korukkupet ...	...	...	...	...	...	...
5	Centre ,, ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		5	Harbour ...	...	...	...	...	...	...
6	West ,, ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		6	Muthialpet ...	...	...	...	...	...	...
7	North ,, ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		7	Katchaleswaranpet ...	...	...	...	...	...	...
8	Centre ,, ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		8	Kothawal Bazaar ...	...	...	...	...	...	...
9	South ,, ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		9	Amman Koil ...	...	...	...	...	...	...
10	4th Division ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		10	Seven Wells ...	...	...	...	...	...	...
11	North Ward ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		11	Sowcarpet ...	...	...	...	...	...	...
12	Centre ,, ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		12	Peddunaikpet ...	...	...	...	...	...	...
13	South ,, ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		13	Trevelyan Basin ...	...	...	...	...	...	...
14	North ,, ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		14	Esplanade ...	...	...	...	...	...	...
15	South ,, ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		15	Park Town ...	...	...	...	...	...	...
16	North ,, ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		16	Perambur ...	...	...	...	...	...	...
17	Centre ,, ...	1	3	...	...	...	...	...	...	...	3	1	4	0·2	0·05	0·1		17	Chulai ...	...	...	...	...	...	...
18	South ,, ...	7	2	1	...	...	...	...	...	...	5	5	10	0·3	0·3	0·3		18	Purasawalkam ...	...	...	...	...	...	...
19	East ,, ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		19	Vepery ...	...	...	...	...	...	...
20	West ,, ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		20	Egmore ...	...	...	...	...	...	...
																		21	Kilpauk ...	...	...	...	...	...	...
																		22	Nungambaukam ...	...	...	...	...	...	...
																		23	Chintadripet ...	...	...	...	...	...	...
																		24	Tiruvateswaranpet ...	...	...	...	...	...	...
																		25	Chepauk ...	...	...	...	...	...	...
																		26	Triplicane ...	...	...	...	...	...	...
																		27	Amir Mahal ...	...	...	...	...	...	...
																		28	Mirsahibpet ...	...	...	...	...	...	...
																		29	Rayapettah ...	...	...	...	...	...	...
																		30	Mylapore ...	...	...	...	...	...	...
	Total ...	8	5	1	...	...	...	...	...	...	8	6	14	0·03	0·02	0·03			Total ...	...	...	...	...	...	...

Note:—(1) Total No. of deaths from Plague during the year 14 or the death rate on population 0·03
(2) Mean ratio of deaths from Plague on population for previous 5 years ... ... 0·02

Annual Form No. X—Deaths registered from "Malaria" by divisions during each month of the year 1919.

1	2	3									4			5			6
Old Divisions.	Wards.	January.	February.	March.	April.	May.	June.	July.	August.	September.	Total No. of deaths Registered from January to 30th Sept. 1919. Males.	Females.	Total.	Ratio of deaths per 1,000 of population. Males.	Females.	Total.	Mean Ratio per 1,000 during the previous 5 years.
1	East Ward ...	10	2	4	3	1	5	2	2	3	19	13	32	2·6	1·6	2·1	Not available.
2	Centre " ...	23	3	3	3	2	3	5	...	...	24	18	42	1·6	1·2	1·4	
3	West " ...	...	...	1	4	2	...	2	1	...	5	5	10	0·9	1·0	0·9	
4	East " ...	9	6	3	2	7	2	3	1	...	14	19	33	2·2	4·1	3·0	
5	Centre " ...	3	3	1	1	1	3	2	...	3	8	9	17	1·1	1·3	1·2	
6	West " ...	3	...	2	...	3	1	3	2	3	9	8	17	1·0	0·1	1·0	
7	North " ...	14	9	9	9	11	15	12	7	3	27	62	89	2·0	4·5	3·2	
8	Centre " ...	14	7	9	14	7	6	10	9	3	38	41	79	3·4	4·0	3·7	
9	South " ...	9	4	6	2	3	5	3	6	8	25	21	46	2·9	2·9	2·9	
10	4th Division ...	10	5	1	3	4	4	2	...	1	10	20	30	1·0	2·3	1·6	
11	North Ward ...	11	8	6	5	3	5	4	...	4	24	22	46	1·5	1·4	1·5	
12	Centre " ...	6	7	3	2	6	9	6	...	2	19	22	41	1·6	1·9	1·8	
13	South " ...	2	3	2	...	1	1	1	1	...	3	8	11	0·3	0·9	0·6	
14	North " ...	...	...	...	...	...	...	...	1	1	1	1	2	0·2	0·2	0·3	
15	South " ...	...	...	...	...	...	...	...	...	1	...	1	1	...	0·1	0·1	
16	North " ...	3	3	2	1	2	2	2	...	...	7	8	15	0·7	0·8	0·7	
17	Centre " ...	...	...	...	...	2	2	...	1	1	2	4	6	0·2	0·3	0·7	
18	South " ...	...	1	...	1	2	1	...	...	2	5	2	7	0·4	0·2	0·3	
19	East " ...	4	1	1	...	3	3	2	...	...	5	9	14	0·4	0·7	0·6	
20	West " ...	3	...	2	...	1	...	1	...	...	1	6	7	0·09	0·8	0·4	
	Total ...	124	62	55	50	61	67	60	31	35	246	299	545	1·2	1·6	1·4	

7	8	9			10		
Present Divisions.	Districts.	October.	November.	December.	Total No. of deaths. Registered from October to 31st December 1919. Males.	Females.	Total.
1	Royapuram ...	4	2	3	4	5	9
2	Tondiarpet ...	2	3	1	5	1	6
3	Washermanpet ...	1	2	...	2	1	3
4	Korukupet ...	...	1	1	...	2	2
5	Harbour ...	1	1	2	3	1	4
6	Muthialpet ...	...	3	2	1	4	5
7	Katchaleswaranpet.	1	1	1	2	1	3
8	Kothawal Bazaar ...	1	3	4	4	4	8
9	Amman Koil ...	...	3	3	5	1	6
10	Seven Wells ...	1	5	7	6	7	13
11	Sowcarpet ...	4	5	1	2	8	10
12	Peddunaikpet ...	2	5	5	6	6	12
13	Trevelyan Basin ...	6	2	5	8	5	13
14	Esplanade ...	1	1	2	3	1	4
15	Park Town ...	1	5	1	3	4	7
16	Perambur ...	2	1	2	3	2	5
17	Chulai ...	4	4	2	7	3	10
18	Purasawalkam ...	1	4	3	6	2	8
19	Vepery ...	3	1	...	3	1	4
20	Egmore ...	1	4	7	6	6	12
21	Kilpauk ...	3	2	1	3	3	6
22	Nungambakam ...	1	...	...	...	1	1
23	Chintadripet ...	3	3	5	8	3	11
24	Tiruvateswaranpet	...	2	2	...	4	4
25	Chepauk ...	1	...	2	2	1	3
26	Triplicane ...	...	...	1	...	1	1
27	Amir Mahal ...	...	...	...	...	...	..
28	Mirsahibpet ...	...	1	3	2	2	4
29	Rayapetta ...	4	7	3	8	6	14
30	Mylapore ...	2	1	...	2	1	3
	Total ...	50	72	69	104	87	191

Note.—(1) Total No. of deaths from Malaria during the year 736 or the death rate on population 1·2

(2) Mean ratio of deaths from Malaria on population for previous 5 years ... ... 2·7

Annual Form No. XI—Deaths registered from "Enteric Fever" by divisions during each month of the year 1919.

1	2	3									4			5			6
Old Divisions.	Wards.	January.	February.	March.	April.	May.	June.	July.	August.	September.	Total No. of deaths Registered from January to 30th Sept. 1919. Males.	Females.	Total.	Ratio of deaths per 1,000 of population. Males.	Females.	Total.	Mean Ratio per 1,000 during the previous 5 years.
1	East Ward ...	...	1	...	...	1	...	...	...	...	1	1	2	1·0	0.09	0.1	Not available.
2	Centre " ...	...	...	...	...	...	...	...	1	...	1	...	1	0.05	...	0.02	
3	West " ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
4	East " ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
5	Centre " ...	...	1	1	1	...	...	...	...	1	2	2	4	0·3	0·3	0·3	
6	West " ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
7	North " ...	...	...	...	...	2	...	2	...	...	1	3	4	0.05	0.2	0.1	
8	Centre " ...	...	...	...	...	2	...	...	...	...	1	1	2	0.07	0.07	0.1	
9	South " ...	...	...	...	1	2	1	...	...	1	2	3	5	0.3	0.4	0.3	
10	4th Division ...	...	...	...	...	...	...	...	...	1	1	...	1	0.08	...	0-04	
11	North Ward ...	...	...	1	...	2	...	...	...	...	3	...	3	0.2	...	0.1	
12	Centre " ...	1	...	...	1	1	...	1	1	...	2	3	5	0.02	0.3	0.2	
13	South " ...	...	...	...	...	...	...	1	...	...	...	1	1	...	0.08	0.04	
14	North " ...	...	1	...	...	...	...	1	...	...	1	1	2	0.1	0.2	0.3	
15	South " ...	...	...	...	...	...	...	...	1	...	1	...	1	0.1	...	0.07	
16	North " ...	1	...	...	...	...	...	...	...	...	1	...	1	0.07	...	0.04	
17	Centre " ...	1	...	2	1	1	...	...	...	...	1	4	5	0.05	0.3	0.2	
18	South " ...	1	2	...	...	...	1	...	...	...	2	2	4	0.2	0.2	0.2	
19	East " ...	...	...	1	...	...	...	...	...	...	...	1	1	...	0.06	0.03	
20	West " ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Total ...	4	5	5	4	11	2	5	3	3	20	22	42	0.1	0.1	0.1	

7	8	9			10		
Present Divisions.	Districts.	October.	November.	December.	Total No. of deaths Registered from October to 31st December 1919. Males.	Females.	Total.
1	Royapuram ...	...	...	...	...	...	...
2	Tondiarpet ...	...	...	...	...	...	...
3	Washermanpet ...	...	...	...	...	...	...
4	Korukupet ...	...	...	...	...	...	...
5	Harbour ...	...	...	...	...	...	...
6	Muthialpet ...	...	...	...	...	...	...
7	Katchaleswaranpet ...	...	...	...	...	...	...
8	Kothawal Bazaar ...	...	...	...	...	...	...
9	Amman Koil ...	...	...	2	1	1	2
10	Seven Wells ...	...	1	...	1	...	1
11	Sowcarpet ...	...	1	...	1	...	1
12	Peddunaikpet ...	...	...	1	1	...	1
13	Trevelyan Basin ...	...	...	...	...	...	...
14	Esplanade ...	...	...	...	...	...	...
15	Park Town ...	...	...	...	...	...	...
16	Perambur ...	...	...	...	...	...	...
17	Chulai ...	...	...	...	...	...	...
18	Purasawakam ...	...	...	...	...	...	...
19	Vepery ...	...	...	...	...	...	...
20	Egmore ...	1	...	1	...	2	2
21	Kilpauk ...	...	...	...	...	...	...
22	Nungambakam ...	...	...	...	...	...	...
23	Chintadripet ...	...	...	...	...	...	...
24	Tiruvateswaranpet ...	...	...	...	...	...	...
25	Chepauk ...	...	...	...	...	...	...
26	Triplicane ...	1	1	...	1	1	2
27	Amir Mahal ...	...	...	...	...	...	...
28	Mirsahibpet ...	...	...	...	...	...	...
29	Rayapetta ...	...	1	...	...	1	1
30	Mylapore ...	...	...	...	...	...	...
	Total ...	2	4	4	5	5	10

Note.—(1) Total No. of deaths from Enteric Fever during the year 52 or the death rate on population 0·1
(2) Mean ratio of deaths from Enteric Fever on population for previous 5 years ... ... 0·1

Annual Form No. XII—Deaths registered from "Other Fevers" by divisions during each month of the year 1919.

1	2	3									4			5			6	7	8	9			10		
Old Divisions.	Wards.	January.	February.	March.	April.	May.	June.	July.	August.	September.	Total No. of deaths Registered from January to 30th Sept. 1919.			Ratio of deaths per 1,000 of population.			Mean Ratio per 1,000 during the previous 5 years.	Present Divisions.	Districts	October.	November.	December.	Total No. of deaths Registered from October to 31st December 1919		
											Males.	Females.	Total.	Males	Females.	Total.							Males.	Females.	Total
1	East Ward ...	8	3	3	3	7	9	13	20	9	22	53	75	3.0	6.7	4.9	Not available.	1	Royapuram ...	2	7	7	6	10	16
2	Centre ,, ...	23	12	8	9	8	10	36	46	12	70	94	164	4.6	6.2	5.4		2	Tondiarpet ...	8	6	9	8	15	23
3	West ,, ...	6	1	3	2	1	4	11	15	9	17	35	52	2.9	6.4	4.6		3	Washermanpet ...	9	2	4	5	10	15
4	East ,, ...	8	3	6	2	6	11	15	14	8	33	40	73	5.1	8.8	6.7		4	Korukupet ...	7	6	2	8	7	15
5	Centre ,, ...	5	2	2	3	1	6	13	17	4	21	31	52	2.8	4.5	3.6		5	Harbour ...	2	1	1	2	2	4
6	West ,, ...	5	3	...	1	2	...	10	10	1	7	25	32	0.7	3.2	1.9		6	Muthialpet ...	5	...	1	5	1	6
7	North ,, ...	7	6	7	8	20	12	28	16	11	64	51	115	4.6	3.6	4.1		7	Katchaleswaranpet ...	2	...	7	4	5	9
8	Centre ,, ...	8	7	5	4	10	7	12	17	6	32	46	78	2.9	4.5	3.6		8	Kothawal Bazaar ...	3	3	1	2	5	7
9	South ,, ...	21	5	7	3	8	16	22	32	19	64	69	133	7.6	9.5	8.5		9	Amman Koil ...	8	7	9	6	18	24
10	4th Division ...	3	2	...	...	2	4	15	50	4	41	39	80	4.2	4.4	4.3		10	Seven Wells ...	7	10	8	4	21	25
11	North Ward ...	4	1	4	7	10	6	44	111	32	112	107	219	7.0	7.0	7.0		11	Sowcarpet ...	5	2	2	2	7	9
12	Centre ,, ...	23	16	9	7	6	13	21	16	10	61	60	121	5.3	5.5	5.4		12	Peddunaikpet ...	14	12	11	13	24	37
13	South ,, ...	1	5	1	...	9	7	6	24	3	16	40	56	1.7	4.7	3.2		13	Trevelyan Basin ...	14	3	5	8	14	22
14	North ,, ...	4	3	2	...	2	2	10	8	4	18	17	35	3.9	4.2	4.0		14	Esplanade ...	1	3	6	7	3	10
15	South ,, ...	4	5	2	2	1	7	8	18	13	20	40	60	3.5	7.0	5.3		15	Park Town ..	14	15	14	20	23	43
16	North ,, ...	3	2	1	3	1	3	12	11	4	15	25	40	1.5	2.5	2.0		16	Perambur ...	2	1	3	3	3	6
17	Centre ,, ...	8	3	7	8	11	17	18	28	9	44	65	109	3.0	4.6	0.6		17	Chulai ...	10	17	13	18	22	40
18	South ,, ...	6	4	3	7	11	9	23	23	10	43	53	96	2.6	4.4	3.9		18	Purasawakam ...	2	3	4	4	5	9
19	East ,, ...	22	16	15	14	17	13	20	29	13	72	88	160	5.6	6.7	6.2		19	Vepery ...	4	14	9	16	11	27
20	West ,, ...	9	2	6	6	5	10	19	8	5	31	39	70	3.9	5.4	4.6		20	Egmore ...	7	8	12	8	19	27
																		21	Kilpauk ...	2	3	15	17	3	20
																		22	Nungambakam ...	4	10	13	15	12	27
																		23	Chintadripet ...	10	15	20	25	20	45
																		24	Tiruvateswaranpet ...	3	15	21	22	17	39
																		25	Chepauk ...	10	5	8	7	16	23
																		26	Triplicane ...	6	8	8	10	10	20
																		27	Amir Mahal ...	10	11	26	23	24	47
																		28	Mirsahibpet ...	11	12	17	25	15	40
																		29	Rayapetta ...	8	1	22	13	18	31
																		30	Mylapore ...	9	15	12	16	20	36
	Total ...	178	101	91	90	138	166	358	512	186	803	1,017	1,820	4·0	5·4	4·7			Total ...	199	213	290	322	380	702

Note.—(1) Total No. of deaths from Other Fevers during the year 2522 or the death rate on population 4·9

(2) Mean ratio of death from Other Fevers on population for previous 5 years ... ... 2·8

Annual Form No. XIII—Deaths registered from "Dysentery and Diarrhoea" by divisions during each month of the year 1919.

1	2	3									4			5			6
Old Divisions.	Wards.	January.	February.	March.	April.	May.	June.	July.	August.	September.	Total No. of deaths Registered from January to 30th Sept. 1919.			Ratio of deaths per 1,000 of population.			Mean Ratio per 1,000 during the previous 5 years.
											Males.	Females.	Total.	Males	Females.	Total.	
1	East Ward ...	57	20	20	15	9	15	14	18	14	75	107	182	10·2	13·6	12·0	Not Available.
2	Centre ,, ...	128	57	38	33	27	52	51	70	30	241	245	486	15·7	15·7	15·9	
3	West ,, ...	25	15	15	11	9	11	11	21	7	62	63	125	10·6	11·5	11·0	
4	East ,, ...	31	14	8	8	5	8	14	13	7	52	56	108	8·1	12·5	9·9	
5	Centre ,, ...	26	12	14	2	9	4	15	10	13	58	47	105	7·6	7·0	7·3	
6	West ,, ...	35	14	12	14	18	15	17	14	13	63	89	152	7·0	11·4	9·0	
7	North ,, ...	53	39	29	26	20	25	42	47	30	155	156	311	10·7	11·1	11·2	
8	Centre ,, ...	35	18	12	15	16	9	12	16	16	63	86	149	5·6	8·4	6·9	
9	South ,, ...	21	7	3	8	8	5	14	20	8	47	47	94	5·6	6·5	6·0	
10	4th Division ...	44	40	32	33	32	34	34	35	24	151	157	308	15·3	17·6	16·5	
11	North Ward ...	88	59	49	56	61	38	48	48	49	243	253	496	15·3	16·5	15·9	
12	Centre ,, ...	31	36	12	8	16	8	13	39	23	85	101	186	7·4	9·2	8·3	
13	South ,, ...	30	16	30	13	4	11	19	20	13	89	67	156	9·6	7·9	8·8	
14	North ,, ...	18	17	15	17	21	14	19	17	21	82	77	159	17·6	18·6	18·0	
15	South ,, ...	27	22	14	13	5	3	15	26	14	73	66	139	12·7	11·6	12·2	
16	North ,, ...	24	21	23	19	20	8	14	20	25	86	88	174	8·5	8·9	8·7	
17	Centre ,, ...	61	24	34	25	31	20	31	49	26	153	148	301	10·4	10·4	10·5	
18	South ,, ...	50	29	23	21	24	25	22	38	16	135	113	248	10·8	9·4	10·1	
19	East ,, ...	73	57	33	25	22	18	51	68	36	189	194	383	14·9	12·6	14·9	
20	West ,, ...	38	29	17	19	5	8	21	24	15	81	95	176	10·2	8·1	11·6	
	Total ...	895	546	433	381	362	331	477	613	400	2,183	2,255	4,438	8.2	8·9	8.6	

7	8	9			10		
Present Divisions.	Districts.	October.	November.	December.	Total No. of deaths Registered from October to 31st December 1919.		
					Males.	Females.	Total.
1	Royapuram ...	11	18	14	14	29	43
2	Tondiarpet ...	23	30	32	54	31	85
3	Washermanpet ...	20	15	26	28	33	61
4	Korukupet ...	11	13	16	24	16	40
5	Harbour ...	4	7	8	12	7	19
6	Muthialpet ...	5	6	11	9	13	22
7	Katchaleswaranpet ...	10	13	4	9	18	27
8	Kothawal Bazaar ...	2	2	5	5	4	9
9	Amman Kovil ...	10	14	16	24	16	40
10	Seven Wells ...	11	8	20	26	13	39
11	Sowcarpet ...	...	2	3	3	2	5
12	Peddunaikpet ...	8	12	15	19	16	35
13	Trevelyan Basin ...	18	16	18	30	22	52
14	Esplanade ...	1	5	4	7	3	10
15	Park Town ...	12	7	20	21	18	39
16	Perambur ...	37	36	28	62	39	101
17	Chulai ...	21	38	51	42	68	110
18	Purasawalkam ...	14	24	28	35	31	66
19	Vepery ...	27	26	27	38	42	80
20	Egmore ...	11	11	20	25	17	42
21	Kilpauk ...	7	9	15	15	16	31
22	Nungambakam ...	11	12	14	21	16	37
23	Chintadripet ...	17	23	25	35	30	65
24	Tiruvateswaranpet ...	14	20	22	34	22	56
25	Chepauk ...	11	12	18	24	17	41
26	Triplicane ...	9	12	13	14	20	34
27	Amir Mahal ...	6	11	12	14	15	29
28	Mirsahibpet ...	14	35	24	27	46	73
29	Royapettah ...	22	22	21	30	35	65
30	Mylapore ...	13	14	14	17	24	41
	Total ...	380	473	544	718	679	1,397

Note.—(1) Total No. of deaths from Dysentery and Diarrhoea during the year 5835 or the death rate on population ... 11·3

(2) Mean ratio of deaths from Dysentery and Diarrhoea on population for previous 5 years 8 9

Annual Form No. XIV—Deaths registered from Tubercle including Tubercle of the Lung by divisions during each month of the year 1919.

1	2	3									4			5			6	7	8	9			10		
Old Divisions.	Wards.	January.	February.	March.	April.	May.	June.	July.	August.	September.	Total No. of deaths Registered from January to 30th Sept. 1919.			Ratio of deaths per 1,000 of population.			Mean Ratio per 1,000 during the previous 5 years.	Present Divisions.	Districts.	October.	November.	December.	Total No. of deaths. Registered from October to 31st December 1919.		
											Males.	Fe-males.	Total.	Males	Fe-males.	Total.							Males.	Fe-males.	Total.
1	East Ward ...	1	2	4	3	4	5	3	2	5	16	13	29	2·1	1·6	1·9	Not available.	1	Royapuram ...	3	3	2	6	2	8
2	Centre " ...	18	7	14	14	8	18	8	11	17	60	55	115	3·9	3·6	3·8		2	Tondiarpet ...	8	6	13	17	10	27
3	West " ...	4	3	1	2	1	1	5	1	1	13	6	19	2·2	1·1	1·6		3	Washermanpet ...	2	5	2	5	4	9
4	East " ...	4	2	2	3	2	7	3	1	9	19	14	33	2·9	3·2	3·0		4	Korukupet ...	3	2	2	3	4	7
5	Centre " ...	9	2	5	6	7	1	3	4	4	19	22	41	2·5	3·2	2·9		5	Harbour ...	4	3	3	8	2	10
6	West " ...	11	11	6	7	10	5	1	8	5	32	32	64	3·6	4·1	3·8		6	Muthialpet ...	1	4	...	1	4	5
7	North " ...	16	4	6	8	12	7	11	9	7	38	42	80	2·8	3·0	2·9		7	Kachaleswaranpet...	6	4	3	5	8	13
8	Centre " ...	9	4	6	5	4	2	9	5	6	23	27	50	2·0	2·6	2·3		8	Kothawal Bazaar ...	...	2	...	2	...	2
9	South " ...	5	8	8	3	8	8	9	14	5	35	33	68	4·2	4·5	4·3		9	Amman Koil ...	3	2	5	6	4	10
10	4th Division ...	9	4	7	2	4	4	3	3	2	17	21	38	1·8	2·4	2·0		10	Seven Wells ...	2	6	5	5	8	13
11	North Ward ...	12	7	6	9	13	13	6	11	5	38	44	82	2·4	2·9	2·6		11	Sowcarpet ...	1	...	2	2	1	3
12	Centre " ...	10	3	7	5	4	5	6	5	5	21	29	50	1·8	2·7	2·3		12	Peddunaickpet ...	...	2	3	5	...	5
13	South " ...	3	6	2	5	2	3	5	6	1	18	15	33	1·9	1·8	1·9		13	Trevelyan Basin ...	2	1	...	2	1	3
14	North " ...	1	3	1	2	5	6	7	4	2	21	10	31	4·5	2·3	3·5		14	Esplanade ...	1	4	3	5	3	8
15	South " ...	6	2	3	1	2	4	7	4	4	20	13	33	3·5	2·2	2·9		15	Park Town ...	4	7	7	9	9	18
16	North " ...	5	6	7	5	4	5	9	8	4	34	19	53	3·3	2·0	2·6		16	Perambur ...	3	5	8	9	7	16
17	Centre " ...	10	10	15	6	6	5	11	15	8	30	56	86	2·0	3·9	3·0		17	Chulai ...	3	1	5	3	6	9
18	South " ...	8	7	4	8	6	4	2	7	3	22	27	49	1·7	2·2	2·0		18	Purasawakam ...	2	5	7	6	8	14
19	East " ...	4	3	2	3	3	6	2	10	8	23	18	41	1·8	1·4	1·6		19	Vepery ...	3	...	1	1	3	4
20	West " ...	3	3	1	1	...	2	3	1	4	11	7	18	1·4	0·9	1·2		20	Egmore ...	4	4	4	7	5	12
																		21	Kilpauk ...	5	6	5	10	6	16
																		22	Nungambaukam ...	3	5	3	6	5	11
																		23	Chintadripet ...	8	4	5	11	6	17
																		24	Tiruvateswaranpet.	7	5	4	8	8	16
																		25	Chepauk ...	2	2	1	...	5	5
																		26	Triplicane ...	3	1	4	2	6	8
																		27	Amir Mahal ...	4	9	1	9	5	14
																		28	Mirsahibpet ...	2	...	4	3	3	6
																		29	Rayapettah ...	3	1	2	3	3	6
																		30	Mylapore ...	1	...	...	1	...	1
	Total ...	148	97	107	98	105	111	113	129	105	510	503	1,013	2·6	2·5	2·6			Total ...	93	99	104	160	136	296

Note.—(1) Total No. of deaths from Tubercle during the year 1309 or the death rate on population 2·5.
(2) Mean ratio of deaths from Tubercle on population for previous 5 years ... 1·9.

Annual Form No XV—Deaths registered from Respiratory Diseases excluding Tubercle of the Lung by divisions during each month of the year 1919.

1	2	3									4			5			6
Old Divisions.	Wards.	January.	February.	March.	April.	May.	June.	July.	August.	September.	Total No. of deaths Registered from January to 30th Sept. 1919. Males.	Females.	Total.	Ratio of deaths per 1,000 of population. Males.	Females.	Total.	Mean Ratio per 1,000 during the previous 5 years.
1	East Ward ...	16	10	7	9	10	6	8	4	5	41	34	75	5·6	4·3	4·9	Not available.
2	Centre ,, ...	66	44	29	14	22	36	29	2	20	143	119	262	9·4	7·9	8·6	
3	West ,, ...	18	10	6	12	12	9	5	13	3	45	43	88	7·7	7·8	7·8	
4	East ,, ...	7	8	7	10	8	7	7	5	...	32	27	59	5·0	5·9	5·4	
5	Centre ,, ...	38	12	16	6	19	17	23	27	13	66	105	171	8·7	15·5	1·9	
6	West ,, ...	37	15	23	22	34	27	40	29	20	119	128	247	13·2	16·3	4·6	
7	North ,, ...	37	22	20	16	41	30	46	33	24	131	138	269	9·5	9·9	9·7	
8	Centre ,, ...	34	21	18	12	19	17	34	26	14	88	107	195	7·9	10·4	9·1	
9	South ,, ...	16	16	13	18	10	20	31	19	18	80	81	161	9·5	11·1	10·2	
10	4th Division ...	21	17	19	6	13	16	14	6	15	71	56	127	7·2	6·3	6·8	
11	North Ward ...	26	26	17	24	20	18	28	7	20	106	80	186	6·7	5·3	6·0	
12	Centre , ...	20	15	13	12	16	20	21	12	17	72	74	146	6·3	6·8	6·5	
13	South ,, ...	10	15	11	6	22	15	18	13	10	54	66	120	5·8	7·8	6·7	
14	North ,, ...	3	7	4	2	4	3	4	13	5	29	16	45	6·3	3·8	5·1	
15	South ,, ...	8	7	3	3	3	5	7	11	3	26	24	50	4·6	4·2	4·4	
16	North ,, ...	12	14	12	13	17	17	25	21	10	63	78	141	6·2	8·0	7·0	
17	Centre ,, ...	26	16	12	16	16	19	17	30	20	93	79	172	6·3	5·5	5·9	
18	South ,, ...	24	10	11	9	7	10	16	23	10	52	68	120	4·1	5·7	4·9	
19	East ,, ...	26	19	12	26	21	18	4	5	9	71	69	140	5·6	5·3	5·4	
20	West ,, ...	15	16	14	4	4	5	2	5	2	39	28	67	4·9	3·8	4·4	
	Total ..	460	320	267	240	318	315	379	304	288	1,421	1,420	2,841	7·1	7·5	7·3	

7	8	9			10		
Present Divisions.	Districts.	October.	November.	December.	Total No. of deaths. Registered from October to 31st December 1919. Males.	Females.	Total.
1	Royapuram ...	10	13	10	15	18	33
2	Tondiarpet ...	9	13	8	16	14	30
3	Washermanpet ...	11	15	18	20	24	44
4	Korukupet ...	11	15	13	25	14	39
5	Harbour ...	4	1	4	6	3	9
6	Muthialpet ...	10	20	7	16	21	37
7	Kachaleswaranpet ...	11	11	21	25	18	43
8	Kothawal Bazaar ...	6	8	4	9	9	18
9	Ammen Koil ...	10	13	10	14	19	33
10	Seven Wells ...	10	11	23	19	25	44
11	Sowcarpet ...	5	3	11	10	9	19
12	Peddunaickpet ...	14	13	19	15	31	46
13	Trevelyan Basin ...	14	12	24	21	29	50
14	Esplanade ...	5	4	6	8	7	15
15	Park Town ...	10	28	23	33	28	61
16	Perambur ...	17	14	16	25	22	47
17	Chulai ...	3	10	15	12	16	28
18	Purasawakam ...	6	7	13	12	14	26
19	Vepery ...	9	9	28	24	22	46
20	Egmore ...	11	12	9	19	13	75
21	Kilpauk ...	19	32	42	37	38	32
22	Nungambakam ...	6	6	9	9	12	21
23	Chintadripet .	10	12	10	21	11	32
24	Tiruvateswaranpet...	7	12	12	14	17	31
25	Chepauk ...	5	5	8	4	9	13
26	Triplicane ...	2	5	3	4	6	10
27	Amir Mahal ...	7	16	7	16	14	30
28	Mirsahibpet ...	13	9	19	25	16	41
29	Rayapettah ...	8	14	3	13	12	25
30	Mylapore ...	2	7	11	14	6	20
	Total ...	265	350	383	501	497	998

Note.—(1) Total No. of deaths from Respiratory diseases during the year 3839 or the death rate on population ... 7·4

(2) Mean ratio of deaths from Respiratory diseases on population for previous 5 years ... 6·6

Annual Form No. XVI—Deaths registered from Injuries by divisions during each month of the year 1919.

1	2	3									4			5			6	7	8	9			10		
Old Divisions.	Wards.	January.	February.	March.	April.	May.	June.	July.	August.	September.	Total No. of deaths Registered from January to 30th Sept. 1919.			Ratio of deaths per 1,000 of population.			Mean Ratio per 1,000 during the previous 5 years.	Present Divisions.	Districts.	October.	November.	December.	Total No. of deaths Registered from October to 31st December 1919		
											Males.	Fe-males.	Total.	Males	Fe-males.	Total.							Males.	Fe-males.	Total
1	East Ward ...	1	...	...	...	1	...	...	...	...	2	...	2	0·3	...	0·1	Not available.	1	Royapuram ...	2	...	...	...	...	2
2	Centre „ ...	1	...	2	1	3	...	...	1	...	6	2	8	0·4	0·1	0·3		2	Tondiarpet ...	2	2	...	3	1	4
3	West „ ...	2	...	...	1	...	...	...	...	...	1	2	3	0·1	0·4	0·3		3	Washermanpet ...	1	4	1	3	3	6
4	East „ ...	...	...	...	1	1	...	...	1	1	4	...	4	0·6	...	0·3		4	Korukupet ...	1	1	...	1	1	2
5	Centre „ ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		5	Harbour ...	...	...	...	...	...	...
6	West „ ...	2	...	1	...	...	...	...	...	...	2	1	3	0·2	0·1	0·2		6	Muthialpet ...	...	...	...	...	...	...
7	North „ ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		7	Kachaleswaranpet ...	...	...	...	...	...	...
8	Centre „ ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		8	Kothawal Bazaar ...	...	...	...	...	...	...
9	South „ ...	4	1	...	3	...	4	...	...	1	9	4	13	0·1	0·5	0·8		9	Ammen Koil ...	1	2	...	2	1	3
10	4th Division ...	2	1	...	...	...	1	...	1	6	8	3	11	0·8	0·3	0·6		10	Seven Wells ...	1	...	...	1	...	1
11	North Ward ...	2	...	2	1	1	...	...	...	10	11	5	16	0·7	0·3	0·5		11	Sowcarpet ...	...	...	...	...	...	...
12	Centre „ ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		12	Peddunaickpet ...	...	1	...	1	...	1
13	South „ ...	...	1	2	1	2	...	4	...	...	5	5	10	0·6	0·6	0·5		13	Trevelyan Basin ...	...	...	...	...	...	...
14	North „ ...	...	...	...	...	1	1	...	2	...	2	2	4	0·5	0·5	0·4		14	Esplanade ...	...	...	...	...	...	...
15	South „ ...	...	...	...	...	...	...	1	3	...	1	3	4	0·1	0·5	0·5		15	Park Town ...	...	1	1	...	2	2
16	North „ ...	...	...	1	1	1	1	...	1	...	4	1	5	0·4	0·08	0·3		16	Perambur ...	15	12	7	18	16	34
17	Centre „ ...	2	2	1	1	1	2	1	2	3	10	5	15	0·7	0·4	0·5		17	Chulai ...	3	...	1	3	1	4
18	South „ ...	1	1	1	2	2	2	...	1	1	5	6	11	0·4	0·5	0·5		18	Purasawakam ...	7	4	6	8	9	17
19	East „ ...	...	...	1	1	...	2	...	...	...	4	...	4	0·5	...	0·1		19	Vepery ...	...	...	1	...	1	1
20	West „ ...	...	...	...	...	...	...	...	1	...	...	1	1	...	1·0	0·05		20	Egmore ...	...	...	1	...	1	1
																		21	Kilpauk ...	...	...	1	...	1	1
																		22	Nungambakam ...	2	2	...	4	...	4
																		23	Chintadripet ...	...	1	...	1	...	1
																		24	Tiruvateswaranpet ...	...	2	1	2	1	3
																		25	Chepauk ...	...	2	...	2	...	2
																		26	Triplicane ...	...	...	2	...	2	2
																		27	Amir Mahal ...	...	...	...	...	...	...
																		28	Mirsahibpet ...	...	...	...	...	...	...
																		29	Rayapettah ...	1	2	1	3	1	4
																		30	Mylapore ...	...	...	...	...	...	...
	Total ...	17	6	11	13	13	13	6	13	22	74	40	114	0·4	0·2	0·3			Total ...	36	36	28	54	41	95

Note.—(1) Total No. of deaths from Injuries during the year 209 or the death rate on population 0·4

(2) Mean ratio of deaths from Injuries on population for previous 5 years ... 0·3

Annual Form No. XVII—Deaths registered from Other Causes by divisions during each month of the year 1919.

1	2	3									4			5			6
Old Divisions.	Wards.	January.	February.	March.	April.	May.	June.	July.	August.	September.	Total No. of deaths Registered from January to 30th Sept. 1919. Males.	Females.	Total.	Ratio of deaths per 1,000 of population. Males	Females.	Total.	Mean Ratio per 1,000 during the previous 5 years.
1	East Ward ...	79	50	35	39	41	22	34	35	33	175	193	368	23·9	24·4	24·2	Not available.
2	Centre " ...	239	143	116	91	94	97	128	114	106	598	530	1,128	39·1	34·9	37·0	
3	West " ...	51	28	26	26	29	20	28	23	22	124	129	253	21·1	23·6	22·3	
4	East " ...	33	31	9	21	28	24	24	18	17	103	102	205	16·0	22·6	18·7	
5	Centre " ...	44	21	28	30	28	26	27	22	29	118	137	255	15·5	20·1	17·2	
6	West " ...	59	30	25	18	36	28	27	27	27	129	158	287	14·3	20·1	17·0	
7	North " ...	115	64	59	60	55	61	68	72	59	291	322	613	21·1	23·0	22·0	
8	Centre " ...	76	48	47	25	44	36	39	55	42	216	196	412	19·3	19·1	19·2	
9	South " ...	59	33	31	34	46	43	38	40	31	197	158	355	23·4	21·6	22·6	
10	4th Division ...	74	39	51	52	46	29	34	37	29	206	185	391	28·6	20·8	20·9	
11	North Ward ...	134	96	73	63	88	60	61	69	49	335	358	693	21·1	23·4	22·3	
12	Centre " ...	40	39	49	49	33	41	40	44	43	174	204	378	15·3	18·6	16·9	
13	South " ...	56	39	45	32	33	39	39	40	37	182	178	360	19·5	21·0	20·2	
14	North " ...	21	25	21	18	21	12	22	9	13	94	68	162	20·1	16·3	18·4	
15	South " ...	44	22	17	15	14	10	17	20	23	88	94	182	15·6	16·5	16·0	
16	North " ...	83	52	50	54	48	44	50	47	31	238	221	459	23·3	21·5	22·9	
17	Centre " ...	102	73	86	51	66	54	58	75	55	308	312	620	28·8	21·9	21·4	
18	South " ...	83	71	62	42	44	45	56	56	37	238	258	496	18·9	21·3	20·1	
19	East " ...	90	76	46	49	49	35	28	71	43	257	230	487	23·1	17·7	18·9	
20	West " ...	32	34	25	22	15	13	26	30	26	103	120	223	13·0	16·5	14·7	
	Total...	1 14	1014	911	791	858	739	844	904	752	4,174	4,153	8327	20·9	21·9	21·4	

7	8	9			10		
Present Divisions.	Districts.	October.	November.	December.	Total No. of deaths Registered from October to 31st December 1919. Males.	Females.	Total.
1	Royapuram ...	23	36	46	54	51	105
2	Tondiarpet ...	46	72	69	106	81	187
3	Washermanpet ...	39	40	63	67	75	142
4	Korukupet ...	27	35	36	52	46	98
5	Harbour ...	12	19	18	26	23	49
6	Muthialpet ...	17	21	19	23	34	57
7	Kachaleswaranpet ...	24	16	30	34	36	70
8	Kothawal Bazaar ...	14	22	14	32	18	50
9	Ammen Koil ...	40	52	43	63	72	135
10	Seven Wells ...	40	52	44	66	70	136
11	Sowcarpet ...	17	21	20	28	30	58
12	Peddunaikpet ...	35	47	58	62	78	140
13	Trevelyan Basin ...	25	30	39	43	51	94
14	Esplanade ...	10	13	22	25	20	45
15	Park Town ...	33	42	41	52	64	116
16	Perambur ...	31	40	42	59	54	113
17	Chulai ...	37	44	41	63	59	122
18	Purasawalkam ...	23	21	35	45	34	79
19	Vepery ...	32	30	35	55	42	97
20	Egmore ...	34	34	35	44	59	103
21	Kilpauk ...	21	35	37	45	48	93
22	Nungambakkam ...	23	23	22	31	37	68
23	Chintadripet ...	43	53	51	74	73	147
24	Tiruvateswaranpet ...	44	62	52	84	74	158
25	Chepauk ...	33	30	31	49	45	94
26	Triplicane ...	27	25	31	56	27	83
27	Amir Mahal ...	21	37	38	50	46	96
28	Mirsahibpet ...	16	26	28	37	33	70
29	Rayapettah ...	31	38	42	65	46	111
30	Mylapore ...	16	28	23	30	37	67
	Total...	834	1,044	1,105	1,520	1,463	2,983

Note.—(1) Total No. of deaths from Other causes during the year ... 11,310 or the death rate on population 21·8.
(2) Mean ratio of deaths from other causes on population for previuos 5 years ... ... 18·4.

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Annual Form No. XVIII :—Comparing the deaths from some of the principal diseases during the year with the deaths during the preceding four years.

Years.	Cholera.		Small-pox.		Measles.		Plague.		Malaria.		Enteric Fever.		Other Fevers.		Dysentery and Dirrhœa.		Tubercle excluding Tubercle of the Lung.		Respiratory System.				Injuries.		All other causes.		Total Deaths.	
																			Phthisis.		Other Diseases of the Respiratory System.							
	Deaths.	Ratio per 1,000.	Deaths.	Ratio per 1,000.	Deaths.	Ratio per 1,000.	Deaths.	Ratio per 1,000.	Deaths.	Ratio per 1,000.	Deaths.	Ratio per 1,000.	Deaths.	Ratio per 1,000.	Deaths.	Ratio per 1,000.	Deaths.	Ratio per 1,000.	Deaths.	Ratio per 1,000.	Deaths.	Ratio per 1,000.	Deaths.	Ratio per 1,000.	Deaths.	Ratio per 1,000	Deaths.	Ratio per 1,000.
1915 ...	35	0·07	92	0·2	81	0·2	...	...	1686	3·3	75	0·1	569	1·1	4,208	8·1	48	0·09	711	1·4	2,303	4·4	178	0·3	8,702	16·8	18,688	36·0
1916 ...	30	0·06	476	0 9	282	0·5	11	0·02	763	1·5	49	0·09	479	0·9	3,664	7·1	77	0·1	799	1·5	2,851	5·5	145	0·3	8,246	15·9	17,872	34·5
1917 ...	78	0·2	195	0·4	79	0·2	6	0·01	859	1·7	47	0·09	575	1·1	4,131	7·9	91	0·2	976	1·9	3,293	6·4	203	0·4	9,384	18·1	19,917	38·4
1918 ...	503	1·0	272	0 5	104	0·2	22	0·04	881	1·7	45	0·09	4792	9·2	5,533	10·7	57	0·1	1,431	2·8	5,518	10·6	177	0·3	11,927	23·0	31,262	60·3
Mean of the last four years.	161	0·3	259	0·5	134	0·3	10	0·02	1047	2·0	54	0·1	1604	3·1	4,384	8·5	68	0·1	979	1·9	3,491	6·7	176	0·3	9,565	18·4	21,935	42·3
1919 ...	642	1·2	611	1·2	108	0·2	14	0·03	736	1·2	52	0·1	2522	4·9	5,835	11·3	131	0·3	1,178	2·3	3,839	7·4	209	0·4	11,330	21·8	27,187	52·4

Annual Form No. XIX showing a complete classification of Diseases arranged in the order adopted in the Nomenclature of Diseases.

	No. in the Nomenclature of Diseases.	Causes of Deaths.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Infective Diseases.	4	Beri Beri	3	1	2	3	2	1	1	3	3	...	1	1	21
	6	Chicken-Pox	...	...	1		...	...	...	...	...	...	1	1	3
	7	Cholera	372	75	19	3	105	16	19	14	4	3	1	11	642
	10	Diphtheria	...	...	...	...	3	...	...	2	3	...	3	5	16
	11	Dysentery	459	276	219	174	202	163	228	370	201	207	282	316	3,097
	13	Enteric Fever	4	5	5	4	11	2	5	3	3	2	4	4	52
	14	Enteritis	433	265	214	201	155	163	242	240	196	172	190	228	2,699
	15	Erysipelas	...	...	...	..	...	...	...	4	3	...	5	...	12
	21	Influenza	38	4	2	4	24	69	259	481	148	87	92	95	1,303
	22	Kala-Azar	3	5	2	3	2	5	2	3	2	5	5	4	41
	23	Leprosy	22	26	25	12	12	9	25	13	14	12	10	21	201
	25	Malarial Fever	121	58	54	46	59	62	59	28	32	49	70	64	702
		,, with Enlargement of Spleen ...	3	4	1	4	2	4	1	3	3	1	2	5	33
		,, Congestion of Brain ...	...	...	...	...	...	1	...	...	...	...	...	...	1

Infective Diseases.—Contd.	26	Measles	12	4	17	14	11	12	13	6	4	8	3	4	108
	31	Plague	8	5	1	...	...	...	..	...	...	...	..	...	14
	32	Pneumonia	130	96	96	69	126	127	175	108	96	90	131	175	1,419
	34	Pyrexia of uncertain origin	136	88	87	81	110	90	96	27	36	106	112	190	1,159
	35	Hydrophobia	...	3	...	...	1	1	...	...	...	1	...	...	6
	37	Rheumatism	5	2	3	1	1	4	3	...	1	2	2	4	28
	39	Septicaemia	15	7	10	10	7	7	12	12	12	16	35	15	158
		„ Septic Fever	1	4	...	2	2	2	1	1	...	1	4	1	19
	41	Small pox	48	58	97	84	46	69	102	46	19	15	11	16	611
	42	Syphilis	5	3	3	3	5	4	5	5	5	5	...	..	43
	43	Tetanus	13	6	2	2	2	...	5	8	6	2	2	2	50
	44	Tubercle excluding Tubercle of the lung ...	8	8	7	10	13	14	15	10	8	10	18	10	131
	47	Whooping-Cough	14	8	7	7	3	5	10	9	13	14	9	13	112
General Diseases	61	Anaemia	35	14	17	17	23	18	23	32	20	13	11	18	241
	63	„ and Dropsy	5	5	6	11	5	3	5	1	2	1	7	5	56
	66	Diabetes	5	...	3	1	2	1	3	1	1	2	3	5	27
		„ Coma	1	...	...	...	1	...	...	...	1	1	...	...	4
		„ Gangrene	1	...	...	...	...	...	...	1	...	...	...	...	2
	76	Rickets	1	3	1	1	1	1	4	2	1	2	2	1	20

Annual Form No. XIX showing a complete classification of Diseases arranged in the order adopted in the Nomenclature of Diseases.

	No. in the Nomenclature of Diseases.	Causes of Deaths.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Certain morbid conditions incident to various parts.	80	Tumour in the Abdomen	...	...	1	...	2	1	5	1	...	...	...	...	10
		Sarcoma	...	...	...	...	1	...	...	...	...	...	1	...	2
		Cancer	1	1	...	1	1	4	1	2	2	...	5	2	20
		Ulcer	1	...	2	...	...	1	...	...	1	2	...	...	7
		EFFECTS OF PARASITES.													
		Nematoda													
	82	(79) Ankylostomum duodenale	3	3	3	3	1	2	5	...	...	...	...	...	20
		VEGETABLE POISON.													
		(27) Indian Hemp.	...	...	...	...	...	...	...	...	...	2	1	3	6
		ANIMAL POISON.													
		1 Venoms of (a) Snake-bite	...	...	...	1	...	...	...	...	...	...	...	...	1
		(b) Scorpion-Sting	1	2	...	1	2	...	...	...	...	1	1	...	8
Diseases of the Nervous system.		DISEASES OF THE NERVES.													
	86	(a) Neuritis	...	...	...	2	...	...	...	1	...	...	...	...	3
		DISEASES OF THE SPINAL CORD AND MEMBRANES.													
		MEMBRANES.													
	88	Meningitis	...	...	...	...	...	...	...	...	...	...	1	1	2

Diseases of the Nervous System—contd.		**Spinal Cord.**													
	94	(d) Of Posterior Columns	1	...	...	1	1	...	...	...	...	1	1	2	7
		Diseases of the Brain and its Membranes.													
		Brain.													
	99	Encephalitis	...	...	2	1	...	1	...	...	...	...	...	...	4
	101	Cerebral Haemorrhage	3	3	2	2	1	2	1	2	...	1	2	3	22
	109	Apoplexy	...	3	...	2	3	2	3	...	2	3	4	2	24
	110	Paralysis	20	9	17	13	2	2	5	9	7	8	17	9	118
		,, (a) Paraplegia	2	3	2	...	...	...	1	...	...	6	...	2	16
		,, (b) Hemiplegia	27	10	9	5	9	6	12	12	5	14	14	15	138
	123	Eclampsia (Convulsions)	361	249	232	202	221	193	218	204	235	259	300	291	2,965
		,, Puerperal	7	2	3	6	3	6	1	5	4	...	7	8	52
	124	Epilepsy	1	1	...	3	2	3	...	...	2	2	...	2	16
	131	Neuralgia	3	...	...	...	2	...	1	1	2	...	...	...	9
	133	Hysteria	1	...	...	1	...	...	1	...	...	1	...	...	4
	142	Neurasthenia	...	...	...	...	...	...	...	...	...	...	1	2	3
		II Disorders of function.													
	145	Mania	...	...	...	...	...	...	...	...	...	...	...	2	2

Annual Form No. XIX showing a complete classification of Diseases arranged in the order adopted in the Nomenclature of Diseases.

	No. in the Nomenclature of Diseases.	Causes of Deaths.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Diseases of the Nose.		DISEASES OF THE NOSE.													
	280	Epistaxis	...	...	1	...	...	...	...	...	...	...	...	...	1
Diseases of the Circulatory System.		DISEASES OF THE HEART.													
		DISEASES OF THE ENDOCARDIUM.													
	292	Endocarditis	...	...	...	...	...	...	...	...	...	...	...	1	1
	293	Valvular Diseases.	19	12	16	15	12	8	8	3	4	6	7	10	120
		Cardiac Failure	6	5	2	4	4	1	5	2	3	1	5	11	49
		Cardiac Dropsy....	16	6	8	8	9	8	3	3	4	7	4	2	78
		(2) Aortic	...	...	...	...	...	...	...	...	1	...	...	...	1
		Diseases of the Heart (Not specified)	39	21	28	15	22	23	17	20	13	21	20	26	265
		Diseases of the Myocardium.													
	294	Myocarditis	4	2	5	5	3	3	4	3	2	2	3	...	36
	298	Dilatation of the Heart	5	3	1	2	3	1	2	...	2	...	2	...	21
	302	Angina Pectoris.	...	...	...	...	...	...	...	...	...	...	...	1	1

Diseases of the Circulatory System—contd.		DISEASES OF THE BLOOD VESSESLS.													
	316	Aneurysm of Aorta	1	...	...	1	...	..	...	...	...	...	...	2	4
		Diseases of the Veins.													
	325	Phleymasia Dolens	...	...	1	...	...	...	...	...	...	...	...	...	1
Diseases of the Respiratory System.		DISEASES OF THE RESPIRATORY SYSTEM NOT STRICTLY LOCAL.													
	338	Asthma	19	12	18	8	18	9	20	23	19	18	24	17	205
		DISEASES OF THE TRACHEA AND BRONCHI.													
	404	Bronchitis (Acute)	22	15	16	9	19	13	14	13	3	13	26	18	181
		„ Chronic	17	12	8	19	8	15	12	13	13	9	7	15	148
		DISEASES OF THE LUNG.													
	410	Congestion of Lung	1	...	...	1	...	...	...	...	1	...	...	1	4
	413	Broncho-Pneumonia	250	170	118	121	141	141	144	133	90	115	146	137	1,706
	419	Phthisis	140	89	100	88	92	97	98	119	97	83	81	94	1,178
	421	Emphysema	4	1	...	...	...	...	...	...	...	...	...	...	5
	422	Atelectasis	...	2	1	4	...	1	1	2	3	5	7	6	32
	423	Collapse of the Lung	2	3	...	2	2	2	1	...	...	...	...	1	13
		DISEASES OF THE PLEURA.													
	425	Pleurisy	1	1	3	...	1	2	2	3	...	1	...	...	14

Annual Form No. XIX showing a complete classification of Diseases arranged in the order adopted in the Nomenclature of Diseases.

	No. in the Nomenclature of Diseases.	Causes of Deaths.	January	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Diseases of the Digestive System.		DISEASES OF THE MOUTH.													
	436	Stomatitis	...	...	...	1	...	2	1	...	2	1	...	...	7
	438	Cancrumoris	2	1	...	...	...	...	...	...	...	1	2	...	6
		DISEASES OF THE TEETH, ALVEOLI AND GUMS.													
	440	Disorders of Dention Diarrhœa	3	5	...	6	2	5	6	3	3	1	1	...	35
		Diseases of the Stomach.													
	489	Gastritis Acute	11	5	4	4	3	4	5	1	2	...	2	...	41
		,, Chronic	4	4	...	1	5	5	4	6	2	1	2	1	35
	491	Gangrene	...	...	1	2	...	...	...	...	...	...	...	...	3
	499	Dyspepsia	25	12	11	15	8	7	15	17	18	18	14	22	182
		DISEASES OF THE INTESTINES.													
	515	Inflamation :—													
		,, (2) Appendicitis	1	1	...	...	...	...	1	...	1	...	...	...	4
		,, Gastro-Enteritis	1	1	1	1	4	4	5	7	3	3	1	3	34

Diseases of the Digestive System—contd.	526	Sprue	...	...	...	...	...	...	...	...	...	...	1	...	1
	528	Hernia	2	...	1	2	1	2	...	3	1	...	3	3	18
		„ Strangulated.	19	5	3	6	8	5	3	3	8	1	4	1	66
	530	Intussusception	...	...	...	...	...	...	...	...	...	...	...	1	1
	536	Obstruction of Bowels	4	5	13	5	10	13	5	11	...	...	12	15	93
	539	Intestinal catarrh	...	...	...	...	3	...	1	...	...	...	...	...	4
	544	Colic	3	2	...	3	3	...	...	...	...	1	1	3	16
		DISEASES OF THE RECTUM AND ANUS.													
	550	Fistula of Anus	2	1	3	1	3	...	...	2	...	...	...	1	13
	556	Piles	4	7	2	2	3	2	1	2	3	2	1	2	31
	558	Stricture of the Rectum	1	...	1	1	2	...	...	1	1	...	...	...	7
		DISEASES OF THE LIVER.													
	568	Hepatitis	15	16	7	4	9	5	7	7	6	3	6	6	91
		„ (b) Cirrhosis of Liver	10	6	12	13	16	12	12	11	6	13	9	7	127
	569	Enlargement of Liver	4	1	1	3	6	4	3	5	2	1	1	...	31
	575	Jaundice	5	...	4	2	5	2	3	4	2	3	6	6	42
		DISEASES OF THE PERITONEUM.													
	588	Peritonitis	1	2	1	3	3	2	5	5	2	5	3	3	35
	590	Ascites	48	35	41	27	32	21	16	25	21	20	29	21	336

Annual Form No. XIX showing a complete classification of Diseases arranged in the order adopted in the Nomenclature of Diseases.

	No. in the Nomenclature of Diseases.	Causes of Deaths.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Diseases of the Lympatic System.		Diseases of the Spleen.													
	592	Enlargement of the Spleen	4	2	1	2	2	5	1	3	...	...	...	...	20
		Diseases of the Lymphatic Glands.													
	605	Bubo	...	...	...	1	...	...	...	...	...	...	...	...	1
	615	Filariasis	2	1	3	1	2	...	5	3	...	...	...	...	17
		Deseases of the Lymphatic Vessels.													
	616	Lymphangitis	...	1	1	2	2	4	2	2	2	1	1	1	19
	618	Elephantiasis of the Scrotum.	...	...	...	...	...	...	...	1	...	...	...	...	1
		Elephantiasis of the Leg	...	...	...	5	...	...	1	1	...	...	...	1	8
Diseases of the adrenals supra Renals.		Diseases of the Adrenals (supra Renals)													
	643	Hæmorrhage	3	3	1	2	1	...	3	...	...	...	1	1	15

		Diseases of the Kidney.													
Diseases of the Urinary System.	651	Nephritis Acute...	10	10	6	7	5	5	5	2	7	10	11	5	83
		Renal Dropsy	11	4	...	...	4	...	1	6	3	1	2	2	34
	652	Bright's Diseases.	8	5	5	2	6	4	5	4	5	3	3	2	52
	655	Pyelitis	...	...	...	...	...	...	...	...	...	...	...	1	1
	656	Congestion of Kidney	2	1	...	...	...	...	...	...	...	...	...	...	3
		Diseases of the bladder.													
	676	Cystitis ...	1	1	2	1	...	...	1	1	...	2	...	...	9
	685	Rupture (Bladder)	2	1	...	...	...	...	1	...	...	...	...	2	6
	689	Retention of urine	...	...	...	...	1	...	...	...	...	...	...	...	1
		Urinary Disorders.													
	692	Suppression of Urine	...	...	...	1	...	...	...	...	...	...	...	...	1
	697	Albuminuria	1	...	1	...	2	...	3	5	...	...	...	...	12
		Uraemia	...	...	2	2	1	...	1	...	...	...	...	...	6
		,, Coma	1	...	...	...	1	1	...	...	...	...	...	...	3
Diseases of the Generative System.		Diseases of the Male Organs of Generation.													
		Diseases of the Urethra.													
	708	Gleet	1	1	...	1	2	...	...	1	...	1	2	1	10
	712	Stricture of Urethra	...	...	...	1	...	...	1	...	...	...	...	1	3
	715	Extravasation of Urine	2	1	1	...	...	3	2	5	1	...	...	...	15

Annual Form No. XIX showing a complete classification of Diseases arranged in the order adopted in the Nomenclature of Diseases.

	No. in the Nomenclature of Diseases.	Causes of Deaths.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Diseases of the Generative System.		Diseases of the Prostate.													
	720	Hypertrophy	...	2	...	...	...	...	1	...	...	1	1	1	6
		Diseases of the Scrotum.													
	741	Cellulitis Scrotum	1	...	1	1	...	...	...	1	1	...	1	...	6
		Diseases of the Tunica Vaginalis.													
	754	Hydrocele	...	1	1	1	...	...	...	1	...	...	2	...	6
		DISEASES OF THE FEMALE ORGANS OF GENERATION.													
		Diseases of the Uterus including the Cervix.													
	785	Metritis	...	...	...	...	1	...	...	...	...	...	...	...	1
	793	Pyometra	...	1	...	...	...	...	1	...	...	1	...	...	3
	797	Rupture of Uterus	...	...	...	...	1	...	...	...	...	...	...	...	1
		FUNCTIONAL AND SYMTOMATIC DISORDERS OF THE FEMALE ORGANS OF GENERATION.													
	820	Dysmenorrhoea	...	...	...	...	1	...	...	...	...	...	...	...	1
	821	Menorrhagia	...	...	...	...	1	...	...	...	...	...	...	...	1

Affections connected with Pregnancy.		Affections connected with Pregnancy.													
	834	Abortion	2	1	3	1	4	1	1	...	...	1	3	5	22
Affections conncted with Parturition.		Affections connected with Parturition													
	841	N. (1) Tumour of Ovar	1	1	1	...	1	...	1	...	...	...	...	...	5
	852	Premature Birth	147	99	82	89	55	73	82	106	114	107	129	126	1,209
		Difficult Labour...	4	3	3	2	3	2	1	...	...	5	5	5	33
Affections connected on Parturition.		Affections connected on Parturition.													
	853	Post-Partum Haemorrhage	3	3	...	...	1	...	...	1	...	1	...	...	9
	855	Puerperal causes.													
		,, Sapraemia	...	...	...	...	1	...	...	...	...	...	...	...	1
		,, Tetanus	...	1	...	3	...	1	1	1	...	...	7	...	14
		,, Pyaemia	1	...	2	2	2	2	1	...	1	2	...	...	13
	861	Pelvic abscess	...	...	...	...	...	...	...	...	...	1	...	...	1
	866	Puerperal Insanity	...	1	...	1	1	...	1	...	...	...	...	...	4

Annual Form No. XIX showing a complete classification of Diseases arranged in the order adopted in the Nomenclature of Diseases.

	No. in the Nomenclature of Diseases.	Causes of Deaths.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Diseases of the Organs Locomotion.		Diseases of Bones Exclusive of the Spine,													
	885	(b) Periostitis	...	...	...	...	...	...	...	...	...	3	1	1	5
		Diseases of the Joints Exclusive of the Spine													
	903	Arthritis	...	...	...	...	1	1	...	...	...	...	...	...	2
		Diseases of the Muscles.													
	926	Degeneration	...	...	...	...	1	1	...	...	...	...	...	...	2
Diseases of the Connective Tissue.		Diseases of the Connective Tissue.													
	952	Cellulitis	3	...	...	...	2	...	...	1	...	3	2	1	12
	953	Abscess	9	5	5	6	8	7	5	11	6	2	3	5	72
Diseases of the Skin.		Diseases of the Skin.													
	962	Eczema	4	5	10	3	3	1	2	2	1	...	2	...	33
	965	Boil	...	1	...	...	...	1	...	...	...	2	1	4	9
	966	Carbuncle	1	...	...	3	2	5	2	2	3	3	4	...	25
	971	Shingles	...	...	...	1	...	...	1	...	...	...	...	...	2
General Injuries.		General Injuries.													
	1025	Effects of Heat (a) Burn and Scalds	16	3	3	1	2	2	2	...	1	1	1	...	32

General Injurie-scontd.	1029	Shock of Electricity	...	...	...	...	1	...	...	...	...	...	...	...	1
	1030	Suffocation :— ...													
		" by Drowning Accident	7	5	4	3	4	2	10	3	3	3	5	11	60
		" Suicidal	1	...	1	...	1	...	...	...	1	3	2	1	10
	1031	Starvation	11	11	13	6	8	4	11	6	6	4	3	2	85
	1033	Shock	2	...	...	1	2	1	1	...	2	...	1	2	12
		LOCAL INJURIES.													
Local Injuries.	1092	Fracture of the Skull	5	3	5	3	4	...	3	1	1	2	1	2	30
	1098	Compression of Brain	2	1	2	3	3	1	1	1	4	1	1	...	20
	1101	Gun-shot wound	...	...	...	...	...	...	...	...	...	1	...	...	1
		Injuries of the Chest.													
	1145	Fracture of Ribs ... — ...	1	1	1	...	...	...	...	...	...	1	...	...	4
	1156	Multiple injuries	...	5	3	5	3	8	2	3	2	3	5	6	45
		Injuries of Abdomen.													
	1170	Gun-shot wound	...	1	...	1	...	...	...	...	...	...	...	...	2
		Injuries of the Pelvis and Organs of Generation.													
	1189	Fracture of Pelvic bones	1	...	2	1	...	...	...	...	...	1	...	...	5
		All-defined and Non-specified causes.													
		Debility	171	136	98	87	90	78	82	81	74	80	84	126	1,187
		Old age	292	189	145	98	144	132	139	200	95	148	220	242	2,044
		Natural causes	3	1	...	3	1	1	2	...	...	5	1	1	18

TABLE A.

Comparative Statement of deaths from some of the principal diseases during the past 12 years.

Years.	Births.		Deaths.		Small-pox.		Malaria.		Other Fevers.		Other Infectious Diseases.		Plague.		Dysentery and Diarrhoea.		Respiratory Diseases.		Infantile Mortality under 1 year.		Deaths from children between 1 to 5 years.		Still Births.
	No. of Births registered exclusive Still-births.	Birth-rate.	No. of Deaths registered exclusive Still-births.	Death-rate.	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate	Deaths.	Rate.	Deaths.	Rate.	Deaths.
1908	19,980	39·2	22,285	43 7	13	0·02	2,756	5·4	1,981	3·9	1,621	3·2	2	0·004	4,225	8·2	1,508	3·0	5,922	296·3	3,196	70·9	730
1909	18,981	37·2	19,354	37·9	68	0·1	2,514	4·9	1,900	3·7	484	1·0	3	0·005	3,701	7·2	1,648	3·2	5,600	295·0	2,605	57·5	743
1910	19,340	37 9	20,312	39 8	116	0 2	2,376	4·6	2,742	5·4	1,066	2·1	5	0·009	3,635	7·1	2,173	4·3	5,687	294·1	3,059	67·5	673
1911	19,735	38 3	21,771	42·0	480	0·9	2,884	5·6	1,163	2·2	1,482	2·9	3	0·005	4,854	9·4	3,011	5·8	6,027	305·4	3,233	73·7	665
1912	20,099	38·8	20,132	38·8	106	0 2	2,934	5 7	999	1·9	927	1·8	1	0·002	4,897	9·4	2,671	5·2	5,628	280·4	2,951	67·2	674
1913	19,470	37·5	20,675	39·9	34	0·06	2,788	5·4	1,043	2·0	1,232	2·4	3	0·005	5,193	10·0	2,700	5·2	5,713	293·4	3,296	75·1	642
1914	18,241	35·5	24,174	46·6	66	0 1	2,658	5·1	786	1·5	2,306	4·4	2	0·004	5,508	10·6	3,762	7·3	5.635	308·9	3,740	85·2	606
1915	18,331	35·3	18,688	36·0	92	0 2	1,686	3·3	644	1·2	555	1·1	...	...	4,208	8·1	3,062	5·9	5,244	286·1	2,748	62·6	650
1916	21,675	41·8	17,872	34·5	476	0·9	763	1·5	528	1·0	443	0·9	11	0·02	3,664	7·1	3,727	7·2	5,746	265·1	2,742	62·5	975
1917	23,296	44·9	19,917	38·4	195	0·4	859	1·7	575	1·1	654	1·3	6	0·01	4,131	7·9	4,360	8·4	6,460	277·3	2,945	67·1	1,077
1918	19,897	38·4	31,262	60·3	272	0·5	881	1·7	4,837	9·3	542	1·0	22	0·04	5,533	10·7	7,006	13·5	7,068	355·2	4,914	112·0	834
1919	18,936	36·5	27,187	52·4	611	1·2	736	1·2	2,574	5·0	1,288	2·5	14	0·03	5,835	11·3	5,148	9·9	6,230	329·0	4,595	104·7	837

TABLE B.

Years.	1st Quarter. January to March.	2nd Quarter April to June.	3rd Quarter. July to September.	4th Quarter October to December.	Total.
	Inches.	Inches.	Inches.	Inches.	Inches.
1914 ...	1.06	2.70	18.85	34.02	56.63
1915 ...	10.15	2.19	20.43	23.84	56.61
1916 ...	0.04	4.27	8.78	33.38	46.47
1917 ...	0.44	6.15	15.90	28.57	51.06
1918 ...	10.25	7.60	6.96	50.19	75.00
1919 ...	2.33	2.52	16.06	29.87	50.78

TABLE C.

Table of Births, Deaths and Infantile Death-rates for the different races in the City for 1918 and 1919.

Race or Caste.	Population (Census 1911)	1918. Total No. of Births.	1918. Birth-rates.	1918. Total No. of Deaths.	1918. Death-rates.	1918. Infantile Deaths.	1918. Infantile Death-rates.	1919. Total No. of Birth.	1919. Birth-rates.	1919. Total No. of Deaths.	1919. Death-rates.	1919. Infantile Deaths.	1919. Infantile Death-rates.
Europeans ...	4,187	84	20.1	58	13.9	58	690.5	96	22.9	73	17.4	15	156.2
Anglo-Indians ...	10,332	422	40.8	351	34.0	351	831.8	376	36.4	365	35.3	84	223.4
Indian-Christians ...	27,293	940	34.4	1,261	46.2	222	236.2	844	30.9	1,073	39.3	265	314.0
Hindus ...	4,15,910	16,185	38.9	25,863	62.2	5671	350.4	15,371	37.0	22,414	53.9	5,062	329.3
Mahomedans ...	59,169	2,260	38.2	3,719	62.9	766	338.9	2,239	37.8	3,253	55.0	804	159.1
Others ...	1,769	6	3.4	10	5.7	...	...	10	5.7	9	5.1	...	...
Total ...	5,18,660	19,897	38.4	31,262	60.3	7068	355.2	18,936	36.5	27,187	52.4	6,230	329.0

TABLE D.

Total of Birth and Death rates of Principal Sub-divisions of the Hindu Community for 1918 and 1919.

	Population.	1918.				1919.			
		Total Births.	Birth rates.	Total Deaths.	Death rates.	Total Births.	Birth rates.	Total Deaths.	Death rates.
Brahmins ...	32,727	1,070	32·7	1,491	45·6	1,344	41·1	1,266	38·7
Chetty	36,414	1,050	28·8	1,636	44·9	1,460	40·1	1,968	54·0
Vellalah or Mudaliar...	66,551	2,482	37·3	3,634	54·6	2,019	30·3	2,972	44·7
Balijah or Naidu ...	47,811	1,496	31·3	2,588	54·1	1,404	29·4	2,112	44·2
Vanniah or Naicker ...	50,209	2,359	47·0	3,768	75·1	2,236	44·5	2,887	57·5
Pariah	59,651	1,970	33·0	4,332	72·6	2,482	41·6	3,380	56·7
Patnavar	9,799	415	42·4	707	72·2	802	80·2	801	81·7
Yadaval or Idayar ...	14,308	566	39·6	921	64·4	986	68·9	1,426	99·7
Visva Brahmin or Kammalar	15,626	581	37·2	919	58·8	680	43·5	990	63·4

TABLE E.

Table of Births Deaths and Infantile Death-rates by Months for 1918 and 1919.

Months.	1918.						1919.					
	Total No. of Births.	Birth-rates.	Total No. of Deaths.	Death-rates.	Infantile Death.	Infantile Death rates on 1000 Live Births.	Total No. of Births.	Birth-rates.	Total No. of Deaths.	Death-rates.	Infantile Death.	Infantile Death rates on 1000 live births
January ...	1,585	36·7	1,917	44·4	558	352·1	1494	34·6	3,780	87·5	722	483·3
February ...	1,317	30·5	1,745	40·4	523	397·1	1299	30·4	2,293	53·1	536	412·6
March ...	1,565	36·2	1,885	43·6	537	343·1	1537	35·6	2,014	46·6	473	307·7
April ...	1,511	35·0	1,900	44·0	548	362·6	1308	30·2	1,768	40·9	448	342·5
May ...	1,653	38·2	1,848	42·8	526	318·2	1542	35·7	2,028	46·9	412	267·2
June ...	1,693	39·2	1,666	38·5	503	297·1	1365	31·6	1,841	42·6	404	296·0
July ...	1,872	43·3	2,483	57·4	534	285·4	1321	30·6	2,376	55·0	523	395·9
August ...	1,818	42·1	1,935	44·8	421	231·6	1624	37·5	2,575	59·6	515	317·1
September ...	1,790	41·4	2,317	53.6	536	299·4	1837	42·5	1,768	40·9	421	229·2
October ...	1,815	42·0	7,376	170·7	926	510·2	1954	45·2	1,885	43·6	487	249·2
November ...	1,572	36·4	3,224	74·6	684	435·1	1839	42·5	2,306	55·2	642	349·1
December ...	1,707	39·5	2,966	68·6	772	452·3	1816	42·0	2,553	59·2	647	356·3
Total ...	19,897	38·4	31,262	60·3	7068	355·2	18,936	36·5	27,187	52·4	6,230	329·0

TABLE F.

Table of Infantile Mortality by months in the year 1919.

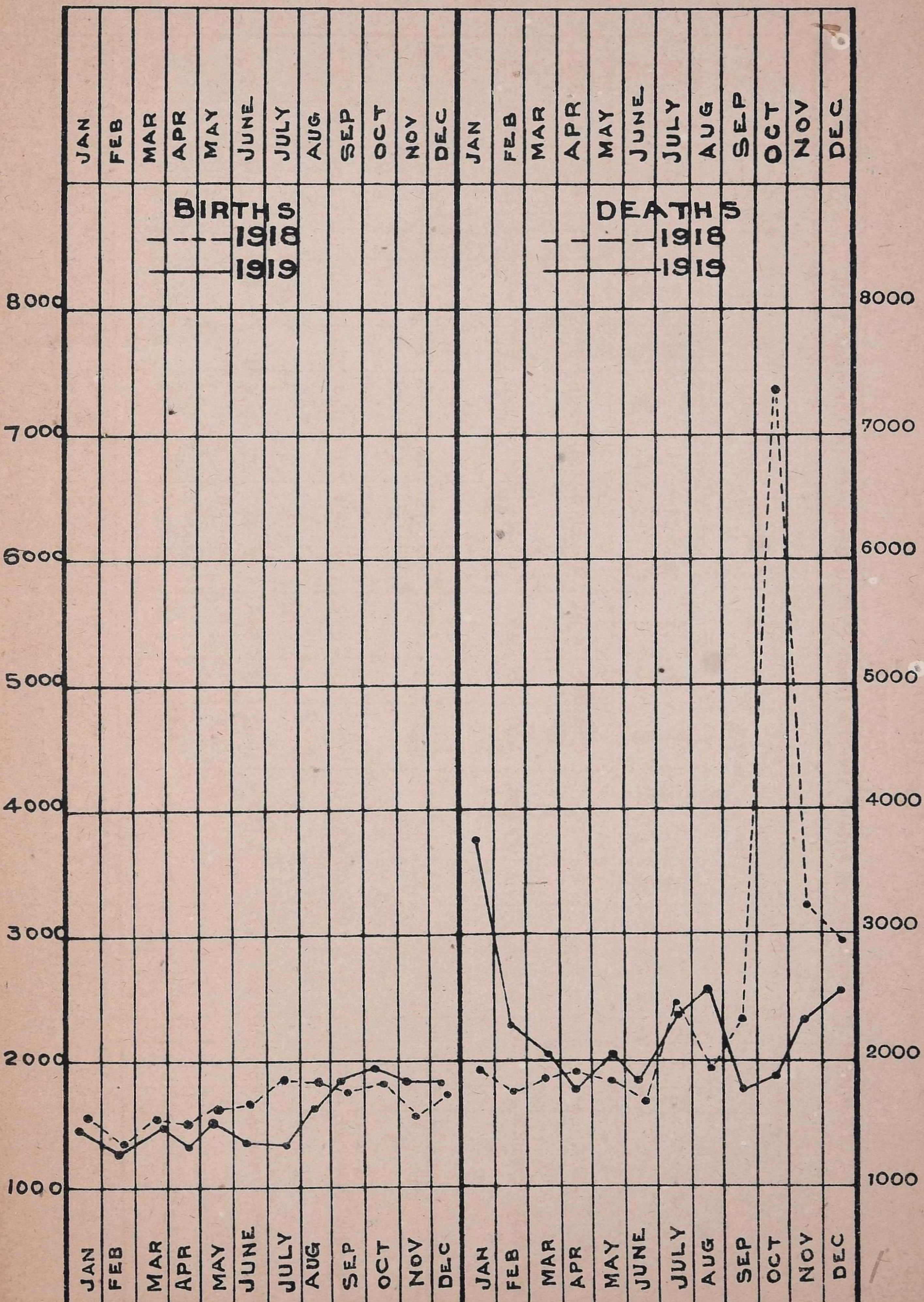
Months.	Small-pox.	Measles.	Malaria.	Ague and Remittent Fever.	Diarrhœa and Dysentery.	Premature Births.	Debility.	Nervous System.	Respiratory System.	All other causes.	Total.			Total of all causes for 1918.
											Males.	Females.	Total.	
January	4	5	...	8	174	147	66	169	129	20	358	364	722	558
February ...	6	4	...	17	123	99	39	105	89	54	283	253	536	523
March	12	5	5	10	111	82	36	109	63	40	252	221	473	537
April	13	5	...	2	89	89	36	114	80	10	249	199	448	548
May	9	2	1	14	86	55	36	100	58	51	228	184	412	526
June	14	5	...	20	90	73	43	72	63	24	232	172	404	503
July	14	6	...	31	126	82	43	102	75	44	274	249	523	534
August	13	6	...	36	111	106	39	121	72	11	260	255	515	421
September ...	4	5	1	5	86	114	38	95	43	30	212	209	421	536
October	1	6	3	20	89	107	48	124	79	10	278	209	487	926
November ...	3	6	3	13	107	129	50	157	123	51	339	303	642	684
December ...	3	1	2	20	120	126	60	151	92	72	353	294	647	772
Total ...	96	56	15	206	1,312	1,209	534	1,419	966	417	3,318	2,912	6,230	7,068

TABLE G.

Table of Percentages of Infant Deaths from Principal causes in the year 1919.

Age Periods.	Small-pox.		Measles.		Mala-ria.		Ague and Remittent Fever.		Diarrhoea and Dysentry.		Premature Births.		Debility.		Nervous System.		Respiratory System.		All other Causes.		Total.	
	Total.	Ratio.	Total.	Ratio.	Total.	Ratio.	Total.	Ratio.	Total.	Ratio.	Total.	Ratio.	Total.	Ratio.	Total.	Ratio.	Total.	Ratio.	Total.	Ratio.	Total.	Ratio.
Under 7 days. ...	...	...	...	...	...	...	5	0·34	12	0·81	961	65·24	207	14·05	154	10·45	43	2·92	91	6·18	1473	23·64
7 Days and under 1 month.	1	0·13	...	...	...	...	7	0·92	42	5·50	190	24·87	109	14·27	285	37·30	38	4·97	92	12·04	764	12·26
1 Month & under 3 months.	2	0·25	2	0·25	...	...	16	1·99	160	19·88	41	5·09	77	9·57	322	40·00	120	14·91	65	8·07	805	12·92
3 Months & under 6 months.	12	1·01	13	1·09	1	0·08	67	5 64	340	28·62	11	0·93	69	5·01	352	29·63	272	22·90	51	4·29	1188	19·07
6 Months & under 9 months.	54	5·04	21	1·96	8	0.74	55	5·13	414	38·62	3	0·28	43	4·01	169	15·76	251	23·41	54	5·04	1072	17·21
9 Months & under 12 months	27	2·91	20	2·16	6	0·64	56	6·03	344	37·7	3	0·32	29	3·12	137	14·76	242	26·08	64	6·90	928	14·90
Total. ...	96	1·54	56	0·90	15	0·24	206	3·31	1312	21·06	1209	19·41	534	8·57	1419	22·78	966	15·51	417	6·69	6230	...

GRAPH SHOWING BIRTHS & DEATHS BY MONTHS



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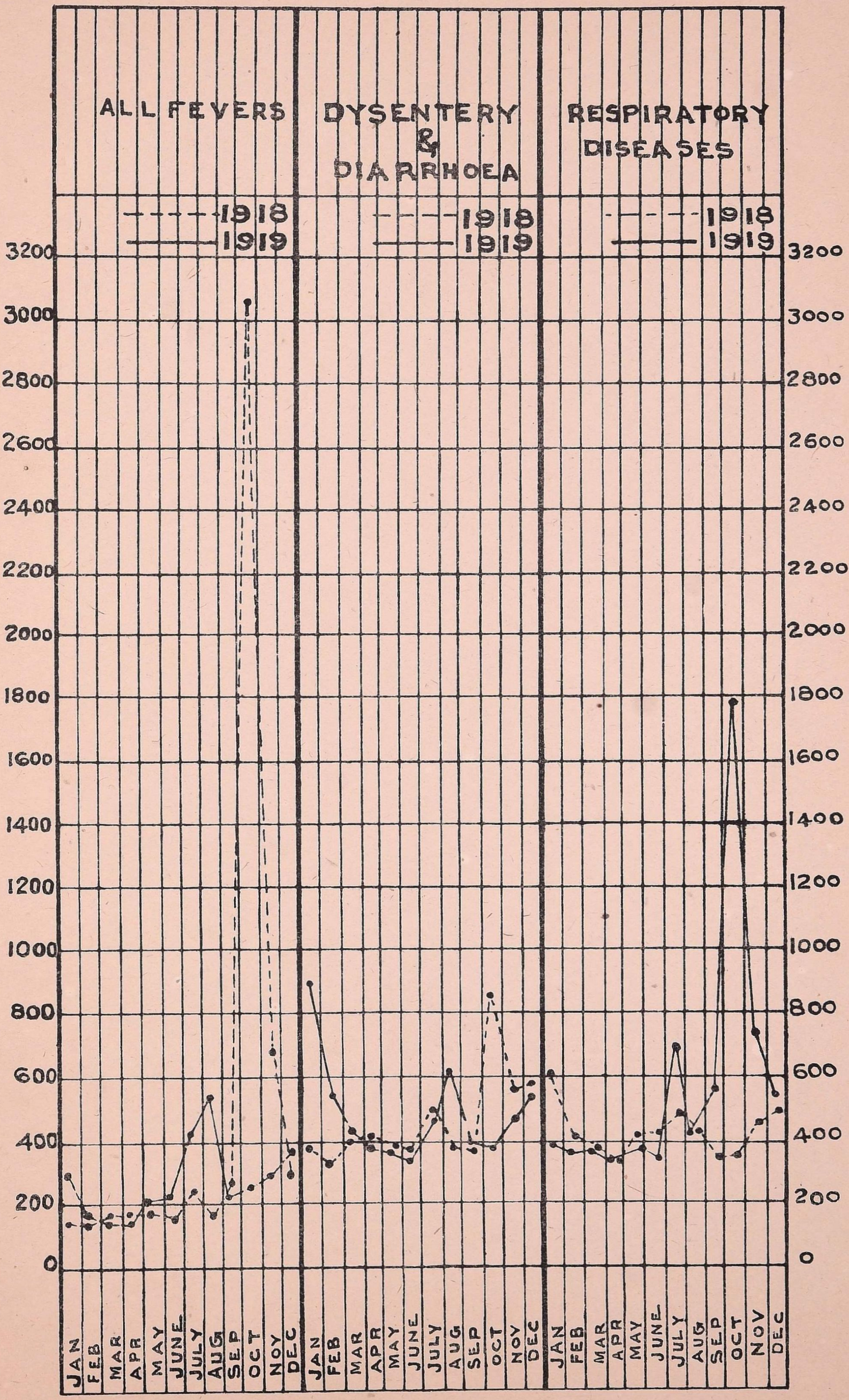
1920

GRAPH SHOWING THE TOTAL DEATHS BY MONTHS FROM



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1920

APPENDIX B.

Concise Report of the Bauliah Naidu Dispensary, Vepery, for the year 1919.

The dispensary is situated in a central place, quite convenient to the residents of Purasawalkum, Vepery, Choolai and Kilpauk ; even those residing in far off places, (viz.), Otary, Perambur, Egmore and New Town resort to the dispensary.

2. *Establishment* consists of the following staff :—

Two sub-assistant surgeons.

Three compounders.

One nurse and midwife (her services were transferred to the Child Welfare Centre, Purasawalkum from 9th October 1919).

One maleward attendant.

One female ward attendant

Four peons

One sweeper.

3. *Number of patients treated as compared with that of the previous year.* The total number treated during the year was 48,769 with a daily average of 254·67 as compared with 47,194 of the previous year with an average daily attendance of 257·86.

2322 minor operations were performed during the year against 1,615 of the previous year.

The maximum number of patients treated on any one day was 349 on the 23rd November 1919.

4. (*a*) The most common diseases treated in the order of frequency were ;

(1)	All other diseases of the digestive system ...	7,631
(2)	do. do. respiratory	5,599
(3)	All other general diseases	5,578
(4)	Other diseases of the skin	4,321
(5)	Diseases of the ear	3,387
(6)	Malaria	1,048

(*b*) Epidemics—The total number of cases of Influenza treated as out-patients during the year was 698. 165 cases were treated as in-patients at the sheds erected adjoining the dispensary, out of which 155 cases were discharged as cured.

5. Work done by the Midwife.—The nurse and midwife, who was on duty till the 8th October 1919, and then transferred to the Child Welfare Centre, Purasawakkam, conducted 43 cases of normal labour.

Financial statement showing the variations as compared with the statistics of the previous calendar year. (Omitting annas and pies.)

	1918	1919
	Rs.	Rs.
Establishment...	4,273	4,727
European medicines	1,923	1,740
Bazaar medicines	3	570
Repairs to buildings	698	...
Miscellaneous charges	1,047	708
Allowances	...	30
Labour	...	100

Madras,
11*th June* 1920.

P. D. RATNASWAMY PILLAI,
Sub-Assistant Surgeon,
in charge of Bauliah Naidu Dispensary, Vepery.

Concise report of the Chintadripet dispensary for the year 1919.

(1) *Accommodation.*—This institution provides treatment for out-door patients only. No additions or alterations to it were made during the year.

(2) *Total treated.*—The total number of patients treated and the daily average attendance were 35,625 and 251·78 as compared with 31,924 and 214·43 for the previous year. There has been an increase of 3,701 in the total number treated and 37·35 in the average. The dispensary therefore maintains its popularity.

(3) *Classes of diseases treated.*—The following table gives the most common forms of diseases treated together with the corresponding figures for the previous year.

Diseases.	1919.	1918.
Dysentery	902	868
Malaria	2,314	1,302
Pyrexia of uncertain origin	1,885	1,934
Rheumatic fever and Rheumatism	1,016	916
Influenza	1,303	944
All other general diseases	3,775	4,040
Diseases of the ear	2,843	2,485
All diseases of the Respiratory system except Pneumonia and tubercle of the lung	3,839	3,248
All other diseases of the digestive system	8,770	7,302
Diseases of the connective tissue	719	809
Ulcers	1,221	1,366
Diseases of the skin	1,158	1,187
Injuries (general and local)	2,252	2,022

There has been a rise by 1,012, 359, 358 and 591 in Malaria, Influenza Diseases of the ear and Respiratory system respectively.

The general rise in the attendance this year and the long continued bad weather are the main causes for this rise.

There has been a rise by 1468 in the diseases of the digestive system. This might be due to the continued rise in the prices of food stuffs and the consequent resort of the people to all sorts of things to appease their appetite.

The differences in the other diseases are small.

(4) The total number of operations performed was 1,391 as against 1,447 in 1918

(5) *Classes and Sexes treated.*—The following table furnishes the information under this heading:

Year.	European	Hindus.	Muhammadans	Others.	Total.	Males.	Females.	Male children.	Female children.	Total.
1919	2,883	24,449	1,742	6,551	35,625	13,719	9,688	6,676	5,542	35,625
1918	2,595	21,970	1,786	5,573	31,924	13,284	8,104	5,799	4,737	31,924

It will be seen from the above table that the Hindus contributed 2,479 and the other castes and Europeans and Eurasians contributed 978 and 288 respectively to the rise.

But in the number of Mahamedans there has been a fall by 44. There has been a rise by 435, 1,584. 877 and 805 in the males, females, male children and female children respectively.

(6) *Finance.*—Fxpenditure during 1,919 was Rs. 6,475 and during 1,918 it was Rs. 5,065. The difference of Rs. 1,410 is due mainly to the increase given to everyone in the staff during the year.

Madras,
10*th June* 1920.

E. VIJAYAM,
Sub-Asst. Surgeon, Chintadripet, Dispensary.

Concise Report of the Corporation Dispensary Washermanpet for the year 1919.

Accommodation.—The accommodation is not sufficient to meet the gradual increase in attendance of patients resorting to the dispensary for treatment for the past 3 years. As remarked by the Health Officer on his inspection of the dispensary during the year, an extension to the main building on the back of the dispensary is an urgent need.

2. The dispensary which was under the supervision of the Surgeon, 1st District Madras, has been transferred to the direct control of the Corporation under the Health Department. Since the beginning of the official year 1919–20, it was occasionally visited during the year by the Surgeon, 1st District, Madras and the Commissioner, Corporation of Madras and inspected by the Health Officer.

3. Number of patients treated as compared with that of the previous two years.—

Years.	Total treated.	Daily average.
1917	25,528	173·28
1918	30,666	215·26
1919	31,640	124·78

The total number treated and the daily average as well were both on the increase during the year and have been so since the undersigned assumed charge of the dispensary in July 1917. 345 patients were treated on the 13th of November 1919, the maximum number of patients who attended the dispensary on any one day during the year.

4. The most common diseases treated in the order of frequency were.—

	1919	1918	1917
(*a*) Other diseases of the skin	4,344	5,677	3,846
(*b*) Malaria	3,281	2,052	3,019
(*c*) All other infective diseases ...	3,245	1,522	40
(*d*) All other diseases of the digestive system	3,146	3,127	3,303
(*e*) All other diseases of the respiratory system except pneumonia and tubercle of the lungs ...	2,439	2,185	1,786
(*f*) Diseases of the ear	2,258	2,364	2,012
(*g*) All other general diseases ...	2,232	2,393	1,711
(*h*) Local injuries	2,019	1,929	1,282

5. *Epidemics.*—Influenza, though not virulent and pandemic, was prevalent almost throughout the year in a wild and sporadic form. Cholera, Small-pox and Measles were in a sporadic form.

6. The following table shows the number of operations performed during the year compared with two previous years :—

Year.	Total number performed.	Number of selected operations.
1917	861	12
1918	1,379	45
1919	1,121	56

7. *Establishment* consists of a sub-assistant surgeon, 3 compounders, 2 surgical attendants one male and one female, a peon and a toti. The employment of an additional peon to regulate the rush of patients on the female side is, I find, necessary

The total expenditure incurred by the Corporation on this institution during 1919 amounted to Rs. 7512–11–6.

Washermanpet Dispensary,
8th June 1920.

R. RAMANJULU,
Sub-Assistant Surgeon,
in Medical charge.

Concise Report of the Triplicane Dispensary for the year 1919.

This dispensary was opened at first purely as a Malarial dispensary at Royapuram during the first quarter of 1913 and was removed to Triplicane High Road next to Post Office and converted into a General dispensary from 1st November 1919.

The dispensary is situated in a most convenient centre amidst the poor locality at Triplicane. The people appreciate its proximity and resort to it in large numbers and receive gratutious medical aid.

A general tatty latrine was erected and was being used by the patients and staff.

The establishment consists of
One sub-assistant surgeon.
One compounder.
One maleward attendant.
One femaleward attendant.
One peon.

The total number of out-patients treated from 1st November to 31st December 1919 was 1,343.

11 minor operations were performed during the year.

The total expenditure incurred by the Corporation on this institution amounted to Rs. 2791-4-4.

Triplicane Dispensary,
1st June 1920.

T. JAYARAM CHETTI,
Sub-Assistant Surgeon.

Concise Report of the Egmore Dispensary for the year 1919.

This dispensary was opened on the 16th September 1919 at the vaccination depot, Poonamallee High Road. It was formerly known as a special malaria dispensary and was located in Purasawalkam.

It is now a general dispensary treating all cases that seek admission into the dispensary.

Establisnment consists of—

One sub-assistant surgeon.

One compounder.

One male attender.

One female attender.

One peon.

The female attender was appointed only after the dispensary was made into a general dispensary in Egmore, whereas the others were transferred from the special malaria dispensary, Purasawalkam.

Accommodation.—The dispensary consists of only two rooms and another small room which serves as a store room at present. The dispensary requires two more rooms for male and female dressings which can be provided for by an extension of the building proper. It is situated in an airy and healthy place at the corner of the Spur Tank and is well ventilated. As there is no latrine accommodation in the place to answer the urgent calls of nature, a latrine is required.

Attendance.—The total number of cases treated in the dispensary for the year 1919 :—

New cases	6,521
Total attendance	12,008
Average daily attendance	32·90

Finance.—The total expenditure incurred by the Corporation on this institution amounted to Rs. 2 940-0-5.

C. GOVINDAN,
Sub-Assistant Surgeon in charge, Egmore Dispensary.

Madras,
18*th June* 1920.

ConciseReport of the Corporation Dispensary, Georgetown, for the year 1919.

Introduction.—Up to October 1919 this dispensary was known as special malaria dispensary, Dhobipet and was located in new Washermanpet. On 3rd October 1919 it was removed to Georgetown and made into a general dispensary. Before its removal although it was intended for malaria cases only, because of the absence of any other dispensary closely, other cases too were being attended to

Accommodation.—The dispensary is now located in a spacious and well ventilated rented upstairs at 94, Audiappa Naick Street, Georgetown, the only place then available.

Attendance.—The total number of new admissions and total cases treated are given below :—

Months.	Number of new cases.	Number of total treatments.	Average of total.	Remarks.
January to October 1919.	2,829	12,681	46·1	While at Dhobipet.
October 1919	331	725	25·89	At Georgetown.
November 1919	1,269	3,423	114·10	
December 1919	1,633	5,084	164·00	
Total for 3 months ...	3,233	9,232	101·33	
Total for this year ...	6,062	21,973	...	

Finance:—The total expenditure incurred by the Corporation on this institution during 1919 amounted to Rs. 2723-8-4.

The average attendance per day is as will be seen from the table, on the increase.

Establishment.—While at Dhobipet the staff consisted of a sub-assistant surgeon, a compounder, a male attender and a peon. On its removal to Georgetown a female attender was appointed in addition.

Remarks.—The appointment of an additional compounder will be soon necessary as the number of cases seeking treatment is on the increase.

K. S. ANANTHA IYER,
Medical Officer in charge of Corporation Dispensary, Georgetown

Madras,
29*th April* 1920.

Concise Report on the working of the Infectious Diseases Hospital, Royapuram, Madras, for the year 1919.

The Infectious Diseases Hospital, Royapuram, Madras, situated near the new Royapuram Government hospital is under the charge of a Sub-Assistant Surgeon. The hospital consists essentially of two separate buildings one for the admission of cholera patients and another for other infectious diseases patients. The hospital has in front of it an extensive maidan which provides free air for

the patients. On the other end of this maidan there is the Government play ground which gives great pleasure to the patients during evenings as they can watch from the hospital the amusements going on within the athletic enclosure.

The following statistics will clearly show that the hospital is one of great usefulness to the City of Madras.

Number of	Cholera patients admitted	... ...	370
Do.	Small-pox do.	... ...	377
Do.	Influenza do.	... ...	132
Do.	Other infectious diseases patients admitted	...	139
		Total ...	1,018

Mr. T. Vadivelu, Sub-Assistant Surgeon, who was in charge of the hospital took 15 months' leave from 24th December 1919 and Mr. J. Titus, Sub-Assistant Surgeon took charge of the hospital from that date.

Madras, 29*th April*, 1920.

J. TITUS,
Medical Officer in charge,
Infectious Diseases Hospital, Royapuram.

Concise Report on the working of Krishnampet Isolation Hospital, Krishnampet.

THE HEALTH OFFICER,

Madras Corporation.

SIR,

I beg to submit the annual report of the Krishnampet Isolation Hospital for the year 1919.

At present the hospital consists of five main wards, providing accommodation for 50 beds in addition to 9 temporary sheds which can also accommodate cholera or plague contacts. The hospital was in charge of Mr. Siva Ramakrishna Iyer Avargal from 1st January to 7th February, when Mr. Sadasivan, L. M. & S., Assistant Surgeon took over charge. The latter was in charge of the hospital for a considerable portion of the year except between 20th October and 30th December, when Mr. Govindan acted as Medical Officer of the Hospital. An ambulance car is stationed here permanently and the driver resides within the proximity of the hospital premises in view to his services being available both day and night.

The hospital consists of the following establishment :—

(1) two nurses, one for day and the other for night.

(2) One compounder.

(3) One male ward attendant.

(4) Two female ward attendants.

(5) One male toty.

(6) Three female toties.

(7) One gardener.

(8) One dhoby.

(9) Two coolies.

(10) One peon.

(11) One ambulance car driver.

(12) One ambulance car cleaner.

The hospital is equipped with sufficient staff to cope with the cases that may resort here for treatment.

During the year under report, the hospital registered an entry of 523 patients and 510 contacts

The deaths from small-pox were mostly amongst unprotected persons. The total number of admissions for cholera is 163 and deaths 86. This includes 21 moribund cases Excluding the moribund cases, the ratio comes to 45·7.

The total number of contacts admitted is 510 These had to be admitted with a view to prevent the dissemination of the disease to their neighbourhood. After admission they were properly segregated to prevent any risk of infection. Hence it is gratifying to note that not a single death had occurred amongst them.

The cost of maintaining the establishment amounted to Rs. 3,383-9-9. This includeed the pay and allowances of the Medical Officers who were in charge of the hospital during the year under report.

A. M VAIPURI MUDALIAR,

Madras.
7th May 1920.

Medical Officer Krishnampet,
Isolation Hospital.

Statement showing the total Number of cases treated in the Infectious Diseases Hospital, Royapuram and in Krishnampet, Isolation Hospital during the year 1919.

Diseases.	No. of cases treated in Infectious Diseases Hospitals.						Total of both Hospitals.			Mortality rate for 1918.
	Royapuram.			Krishnampet.						
	Admissions.	Deaths.	Mortality rate in 1919.	Admission.	Deaths.	Mortality rate in 1919.	Admissions.	Deaths.	Montality rate for 1919.	
Cholera ...	370	167	45·1	163	86	52·8	533	253	47·6	24·5
Small-pox ...	377	69	18·3	242	51	21·1	619	120	19·4	11·5
Chicken pox ...	21	...	...	32	...	...	53	...	...	...
Measles ...	46	2	4·3	21	...	...	67	2	3·0	...
Plague ...	...	...	...	3	1	33·3	3	1	33·3	48·0
Influenza ...	132	29	22·0	9	1	11·1	141	30	21·3	12·0
Malaria ...	1	...	...	5	1	20·0	6	1	16·7	...
Dysentery ...	...	...	...	1	...	...	...	...	...	...
Diarrhoea ...	14	...	...	4	2	50·0	...	...	...	...
Whooping cough ...	1	...	...	...	...	...	1	...	...	...
Tuberculosis ...	1	1	...	...	...	...	1	1	...	50·0
Pneumonia ...	1	1	...	10	2	20·2	11	3	27·2	...
Other Tubercular Diseases ...	1	1	...	...	...	...	1	1	...	...
Mumps ...	1	...	...	1	...	...	2	...	...	16·7
Other causes ...	52	17	32·7	32	4	12·5	84	21	25·2	19·0
Total ...	1018	288	28·3	523	148	28·3	1541	436	28·3	16.1

Statement showing the total Number of contacts admitted and total Number of deaths occurred among them in the two Infectious Diseases Hospitals during the calendar year 1919.

Names of the Infection Diseases Hospitals	Cholera		Small pox.		Measles.		chicken pox.		Plague.		Influenza		All other causes.		Total.	
	No. of contacts.	No. of deaths.	No. of contacts.	No. of deaths.	No. of contacts	No. of deaths.	No. of contacts	No. of deaths.	No. of contacts.	No. of deaths.	No. of contacts.	No. of deaths.	No. of contacts.	No.of deaths.	No. of contacts.	No. of deaths.
Infectious Diseases Hospital Royapuram.	73	2	102	...	21	...	11	...	...	...	76	...	1	...	284	2
Infectious Diseases Hospital Krishnampet.	75	...	184	...	10	...	10	...	230	...	...	...	1	...	510	...
Total...	148	2	286	...	31	...	21	...	230	...	76	...	2	...	794	2

APPENDIX C.

Vaccination Statement 1-A showing the number of Births verified during the Calendar year 1919 and the number of vaccination of infants under one year of age.

(From January to September 1919.)

Old Division	Total births excluding still-births.	Still births.	Deaths under one year.	Number of infants surviving.	Number of infants vaccinated under one year among Madras births.	Percentage of vaccination to births registered
1	2	3	4	5	6	7
1	519	2	143	376	216	41·6
	147	**10**	**16**	**131**	**39**	26·5
2	1,113	40	197	916	695	62.4
	314	**34**	**22**	**292**	**170**	54·1
3	356	23	52	304	220	61·8
	53	**8**	**7**	**46**	**25**	47·2
4	292	7	97	195	99	33·9
	38	**1**	**7**	**31**	**15**	39·5
5	324	4	91	233	131	40·4
	138	**6**	**9**	**129**	**33**	23·9
6	340	3	107	233	109	32·1
	147	**2**	**19**	**128**	**25**	17·1
7	777	13	234	543	315	40·5
	228	**6**	**58**	**170**	**57**	25·0
8	528	19	169	359	188	35·6
	76	**9**	**26**	**50**	**10**	13·2
9	405	9	128	277	149	36·8
	77	...	**6**	**71**	**14**	18·2
10	679	16	195	484	430	63·3
	87	...	**13**	**74**	**38**	43·7
11	1,145	14	364	781	618	53·9
	211	**1**	**56**	**155**	**61**	28·9
12	600	6	183	417	324	54·0
	288	**8**	**43**	**245**	**91**	31·6
13	402	14	114	288	229	57·0
	420	**30**	**80**	**340**	**136**	32·4
14	254	1	66	188	139	54·4
	78	**3**	**17**	**61**	**23**	29·5
15	304	6	77	227	163	53·6
	159	**6**	**31**	**128**	**72**	45·3
16	651	18	193	458	327	50·2
	210	**25**	**32**	**178**	**54**	25·7
17	944	42	272	672	445	47·1
	198	**16**	**13**	**185**	**21**	10·6
18	765	30	222	543	352	46·0
	87	**4**	**20**	**67**	**20**	23·0
19	704	35	130	574	440	62·5
	151	**11**	**41**	**110**	**60**	40·0
20	505	16	101	404	295	58·4
	94	**6**	**21**	**73**	**53**	56 4
Total. ...	11,607	318	3,135	8,472	5,884	50·7
	3,201	**186**	**537**	**2,664**	**1,017**	**31·8**

Vaccination Statement I-B showing the number of Births verifed during the Calendar year 1919 and the number of vaccination of infants uuder one year of age.

(From October to December 1919).

New Divisions	Total births excluding still-births.	Still. births.	Deaths under one year.	Number of infants surviving	Number of infants vaccinated under one year among Madras births.	Percentage of vaccination to Madras births registered.
1	2	3	4	5	6	7
1	126	2	14	112	58	46·0
	44	**1**	**2**	**42**	**37**	84·1
2	108	1	9	99	71	65·7
	55	**2**	**2**	**53**	**39**	70·9
3	195	2	25	170	105	53·8
	58	**3**	**4**	**54**	**17**	29·3
4	115	6	21	94	45	39·1
	26	**3**	**3**	**23**	**7**	26·9
5	65	...	20	45	8	12·3
	5	...	**1**	**4**	...	...
6	55	...	13	42	5	9·1
	5	...	...	**5**	**1**	20·0
7	53	1	18	35	13	24·5
	21	...	**4**	**17**	**4**	19·0
8	22	...	7	15	5	22·7
	6	**2**	...	**6**	**1**	17·0
9	138	2	31	107	26	18·8
	47	**1**	**6**	**41**	**13**	27·7
10	127	4	23	104	53	41·7
	44	**5**	**5**	**39**	**11**	25·0
11	42	...	13	29	11	26·2
	...	**2**	...	...	...	...
12	95	5	11	84	47	49·5
	17	**1**	**7**	**10**	**3**	18·2
13	107	1	26	81	45	42·1
	28	**2**	**3**	**25**	**8**	28·6
14	18	...	5	13	3	17·0
	2	...	...	**2**	...	...
15	99	2	19	80	31	31·3
	24	...	**1**	**23**	**3**	12·5
16	223	20	23	200	175	78·5
	36	**2**	**4**	**32**	**21**	58·3
17	156	2	34	122	102	65·4
	25	...	**6**	**19**	**3**	12·0
18	183	13	31	152	128	69·9
	44	**1**	**6**	**38**	**24**	54·5
19	113	2	23	90	61	54·0
	72	**1**	**11**	**61**	**30**	41·7
20	123	5	21	102	68	55·3
	108	**9**	**11**	**97**	**37**	34·3
21	91	1	12	79	51	56·0
	26	...	**3**	**23**	**7**	27·0
22	81	1	15	66	44	54·3
	49	**3**	**5**	**44**	**23**	47·0
23	163	10	32	131	70	42·9
	59	**3**	**10**	**49**	**6**	10·2
24	213	3	50	163	79	37·1
	42	**3**	**7**	**35**	**1**	2·0
25	70	4	10	60	42	60·0
	31	**4**	**3**	**28**	**14**	45·2
26	93	3	13	80	46	49·4
	14	**1**	**3**	**11**	**2**	14·3
27	124	6	25	99	38	30·6
	21	**1**	**3**	**18**	**3**	14·3
28	137	5	42	95	65	47·4
	30	**4**	**5**	**25**	**20**	66·7
29	139	5	36	103	42	30·2
	47	**6**	**10**	**37**	**26**	55·3
30	135	3	34	101	68	50·4
	12	**2**	**2**	**10**	**6**	50·0
Total ...	3,409	109	656	2,753	1,605	47
	998	**62**	**127**	**871**	**367**	**36·8**

Vaccination Statement II. showing the number of Births verified in 1919 and the number of infants Vaccinated under one year of age.

Year.	Total number of births excluding still-births.	Number of children in column 2 who died before attaining the age of one year without being vaccinated.	Number of children in column 2 who left the city before attaining the age of one year without being vaccinated.	Number of children in column 2 who were available for vaccination. (column 2 *minus* 3 and 4).	Number of children in column 5 who were vaccinated before they attained the age of one year.	Percentage of column 6 to column 5.	Number of children in column 5 whose vaccination was postponed beyond one year of age for medical reasons.
1	2	3	4	5	6	7	8
1917	18,730	3 834	3 070	11 826	1,0429	88·19	118
1917	**831**	**532**	**1,264**	**3,035**	**1,594**	**52·52**	**26**
1918	17 065	4,363	3,069	9 633	8,332	86·49	61
1918	**4,277**	**602**	**988**	**2,687**	**1,382**	**51·43**	**32**
1919	15,016	3 791	2,520	8,705	7489	86·03	182
1919	**4,199**	**664**	**845**	**2 690**	**1,385**	**51·48**	**9**

N. B.—The antique figures denote Hospital births.

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Vaccination Statement No. III—A showing particulars of vaccination from January to September 1919.

Old Divisions.	Wards.	Population.	Number of Depots in each division.	Number of vaccinators in each division.	Total number of persons vaccinated. Males.	Total number of persons vaccinated. Females.	Total number of persons vaccinated. Total.	Average number of persons vaccinated by each vaccinator.	Primary vaccination. Total. Males.	Primary vaccination. Total. Females.	Primary vaccination. Total. Total.	Primary vaccination. Successful. Under one year.	Primary vaccination. Successful. One year and under six.	Primary vaccination. Successful. Six years and above.	Primary vaccination. Successful. Total.	Primary vaccination. Unknown.	Revaccination. Total.	Revaccination. Successful.	Revaccination. Unknown.	Percentage of successful cases in which the results were known. Primary.	Percentage of successful cases in which the results were known. Revaccination.	Persons successfully vaccinated per 1000 of population.	Average annual number of persons successfully vaccinated during the previous five years. Number.	Average annual number of persons successfully vaccinated during the previous five years. Ratio per 1000 of population	Average annual number of deaths from Small-pox during the previous five years. Number.	Average annual number of deaths from Small-pox during the previous five years. Ratio per 1000 of population.	Average cost of each successful vaccination.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
1	East Ward ...	20,318	1		1088	422	1500	...	286	241	527	478	27	...	505	11	983	138	579	97·87	34·08	42·2	Not available.	Not available.	Not available.	Nos available.	Rs. 1—13—8.
2	Centre do ...	40,635	1	1	1575	1157	2732	...	582	472	1054	894	151	...	1045	1	1678	716	381	99·24	55·20	19·3					
3	West do ...	15,120	1		385	282	667	...	182	151	333	299	27	...	326	...	334	180	38	97·90	60 81	44 6					
4	East do ...	14,564	1	1	412	268	680	...	188	163	351	289	46	...	335	6	329	43	176	97·10	28·14	11·9					
5	Centre do ..	19,179	1		609	325	934	...	261	196	457	407	27	...	434	13	477	103	124	97·74	29·18	12.5					
6	West do ...	22,473	...	1	597	419	1016	...	272	216	488	355	85	...	440	32	528	193	111	96·49	46 28	12·5					
7	Nor h do ...	37,065	1		1205	753	1958	...	507	527	1054	846	107	3	956	36	924	321	374	95·79	58·36	4.6					
8	Centre do ...	28,585	...	1	561	442	1003	...	279	298	577	503	62	...	565	6	426	124	183	98·25	51·03	32.1					
9	South do ...	20,937	1		360	249	609	...	220	208	428	327	92	...	419	5	181	52	65	99·05	44·83	9.7					
10	4th Division ...	24,979	1	1	1752	469	2221	...	390	372	762	671	53	2	726	15	1459	293	540	97·18	31 88	54·4					
11	North do ...	41,523	1		1154	994	2148	...	562	572	1134	965	100	11	1076	21	1014	276	136	96·67	31·44	43.4					
12	Centre do ...	29,776	1	1	674	451	1125	...	490	413	903	805	77	...	882	3	222	114	21	98·00	56·72	14.9					
13	South do ...	23,717	...	...	715	382	1097	...	295	227	522	434	57	1	492	18	575	279	77	97·61	56·02	14.5					
14	North do ...	11,751	...	1	441	223	664	...	272	192	464	405	55	...	460	...	200	107	16	99·14	57·61	20.9					
15	South do ...	15,180	1		497	398	895	...	318	269	587	492	73	...	565	6	308	143	24	97·24	50·35	62.2					
16	North do ...	26,752	1	1	875	496	1371	...	334	315	649	536	80	2	618	13	722	342	77	97·17	53·02	16.0					
17	Centre do ...	38,643	1	1	986	701	1687	...	601	435	1036	882	72	1	955	46	651	128	266	95·45	33·25	37.0					
18	South do ..	32 851	...	...	937	804	1741	...	534	413	947	823	60	1	884	34	794	153	351	96·82	34·54	42.1					
19	East do ...	34,358	1	1	575	444	1019	...	421	339	760	555	153	...	708	37	259	163	52	97 92	78·74	33.8					
20	West do ...	20,254	...		391	345	736	...	244	229	473	329	96	...	425	30	263	172	44	93·75	78·54	13.1					
	Total ...	5,18,660	14	10	15789	10024	25813	...	7238	6248	13486	11295	1500	21	12816	333	12327	4040	3635	97·44	46·48	43·3					

Vaccination Statement No. III-B showing Particulars of Vaccination from October to 31st December 1919.

New Municipal Divisions.	Districts.	Population.	Number of depots in each division.	Number of Vaccinators in each Division.	Total No. of persons vaccinated.			Average No. of persons vaccinated by each vaccinator.	Primary vaccination.								Re-vaccination			Percentage of successfull cases in which the results were known.		Persons successfully vaccinated per 1000 of population.	Average annual No. of persons successfully Vaccinated during the previous 5 years.		Average annual No. of deaths from small-pox during the previous 5 years.		Average cost of each successful vaccination.
									Total.			Successful.				Unknown.											
					Males.	Females.	Total.		Males.	Females.	Total.	Under one year.	One year and under six.	Six years and above.	Total.		Total.	Successful.	Unknown	Primary.	Revaccination		Number.	Ratio per 1000 of population.	Number.	Ratio per 1000 of population.	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
1	Rayapuram ...	Not Available.		Vide para on page 22 of the report	68	54	122		47	48	95	72	10	...	82	7	27	8	7	93·18	40·00	Not available.	Not available.	Not available.	Not available.	Not available.	Rs. 1-13-8.
2	Tondiarpet ...				150	111	261		107	99	206	132	37	...	169	10	55	5	8	86·22	10·64						
3	Washermenpet ...				164	119	283		106	110	216	184	8	...	192	4	67	11	32	90·56	31·43						
4	Korukupet ...				147	84	231		108	84	192	135	14	...	149	25	39	2	26	89·22	15·38						
5	Harbour ...				68	40	108		35	21	56	46	7	...	53	2	52	15	5	98·14	31·91						
6	Muthialpet ...				61	41	102		25	35	60	45	7	...	52	3	42	13	18	91·22	54·17						
7	Kachalesvaranpet ...				107	88	195		33	25	58	43	5	...	48	1	137	27	21	84·21	23·28						
8	Kothaval Bazaar ...				44	32	76		41	32	73	41	22	...	63	...	3	2	...	86·30	66·67						
9	Ammen Koil ...				133	30	163		49	19	68	41	7	...	48	8	95	14	57	80·00	36·84						
10	Seven Wells ...				127	46	173		45	38	83	61	8	...	69	5	90	15	55	88·46	42·86						
11	Sowcarpet ...				30	37	67		27	37	64	40	14	...	54	2	3	...	...	87·09	...						
12	Peddunaickenpet ...				73	57	130		46	57	103	84	7	...	91	...	27	2	8	88·34	10·53						
13	Trevelyan Basin ...				121	118	239		53	65	118	87	10	...	97	1	121	17	41	82·90	21·25						
14	Esplanade ...				30	23	53		11	12	23	16	6	...	22	...	30	9	17	95·65	69·23						
15	Park Town ...				91	81	172		51	79	130	102	10	...	112	1	42	9	30	86·82	75·00						
16	Perambur ...				434	84	518		74	84	158	125	7	...	132	8	360	23	36	88·00	7·10						
17	Chulai ...				122	93	215		82	88	170	137	13	...	150	1	45	8	16	88·75	27·59						
18	Purasawakam ...				94	54	148		40	54	94	71	2	...	73	4	54	4	9	81·11	8·89						
19	Vepery ...				119	105	224		97	87	184	128	23	4	155	9	40	10	2	88·57	26·32						
20	Egmore ...				102	108	210		69	85	154	123	...	...	123	4	56	25	3	82·00	47·17						
21	Kilpauk ...				58	58	116		44	53	97	80	4	...	84	2	19	7	2	88·42	41·18						
22	Nungambaukam ...				89	52	141		58	52	110	86	18	...	104	3	31	12	3	97·19	42·86						
23	Chintadripet ...				192	75	267		79	67	146	122	7	1	130	1	121	19	77	89·66	43·18						
24	Tiruvatesvarnpet ...				98	57	155		63	51	114	94	11	...	105	1	41	9	15	92·92	34·62						
25	Chepauk ...				125	75	200		100	68	168	112	25	...	137	10	32	7	18	86·70	50·00						
26	Triplicane ...				116	72	188		97	68	165	106	31	...	137	15	23	5	14	91·33	55·56						
27	Amir Mahal ...				38	55	93		20	42	62	49	5	...	54	4	31	16	...	93·10	51·61						
28	Mirsahibpet ...				94	97	191		91	96	187	132	40	...	172	7	4	4	...	95·55	100·00						
29	Royapettah ...				134	108	242		116	108	224	162	43	...	205	14	18	4	2	97·61	25·00						
30	Mylapore ...				66	65	131		63	65	128	90	30	...	120	3	3	2	...	96·00	66·67						
	Total ...		15		3295	2119	5414		1877	1829	3706	2746	431	5	3182	155	1708	304	522	89·60	25·63						

Random Sampling.

Division.	Place.	Number examined for enlarged spleen.	Number with enlarged spleen.	Percentage.	Number of blood smears taken.	Number infected.	Percentage.	Percentage in 1918	Remarks.
10	Chakilipalayam	41	1	2·4	41	...	...	2·2	
11	Swami Naicken Paracheri ...	29	1	3·45	29	...	...	3·1	
11	Semmencheri	34	...	...	34	...	...	...	
11	Gramam Paracheri	36	1	2·7	36	...	...	3·03	
11	Otteri Ubbrapalayam... ...	34	2	5·88	34	...	...	...	
11	Madavakam tank Road Paracheri	32	...	...	32	...	...	...	
16	Strahans Road Paracheri ...	34	1	2·9	34	...	...	...	
18	Vettiyancheri	27	2	7·4	27	...	...	...	
	Total ...	267	8	2·99	267	...	...	...	

Dispensary Statistics.

Dispensary.	Total number of slides examined.	Number infected.	Percentage.	Percentage in 1918.
1st Dispensary Dhobipet	11	1	25	23·1
2nd Dispensary Washermanpet ...	5	2	40·0	37·5
3rd Dispensary Royapuram ...	129	17	13·1	32·3
4th Dispensary Purasawalkam ...	131	11	8·3	18·8
Total ...	276	31	11·23	...

Statement of wells inspected during the year.

Division.	No. of wells inspected in open yard.	No. of wells inspected under covered roof.	Total No. of wells examined.	No. of wells in which fish were alive.	Percentage.	No. of wells in which fish were introduced in their absence.	Percentage.	Remarks.
I	525	52	577	309	53·36	268	46·44	23 wells were cleaned.
II	112	15	127	82	64·56	45	35·43	2 Do.
III	575	97	672	365	54·31	307	45·68	50 Do.
IV	314	27	341	200	58·65	141	41·34	16 Do.
V	54	20	74	39	52·7	35	47·29	2 Do.
VI	367	199	566	197	34·8	369	65·19	23 Do.
VII	217	49	266	77	28·94	189	71·0	9 Do.
VIII	137	89	266	54	23·89	172	76·1	9 Do.
IX	306	89	395	84	21·26	311	78·73	18 Do.
X	280	124	404	121	29·95	283	70·04	24 Do.
Total	2,887	761	3,648	1,528	41·88	21·20	58·1	176

Reclamation work done during the year

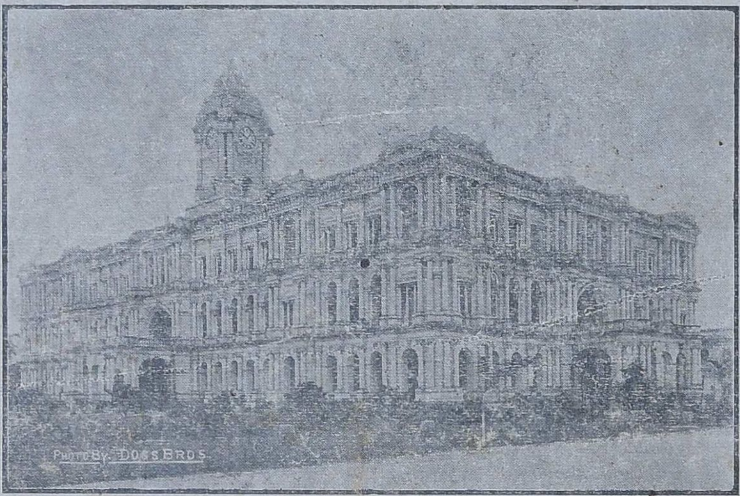
Serial No.	Division.	Name of the owner.	Nature of place.
1	1	Corporation of Madras	Lowland.
2	2	Do.	,,
3	3	Doraisawmi Mudaliar	Tank.
4	3	Ramalingam Pillai	,,
5	3	Corporation of Madras	Pits
6	5	Do.	Lowland
7	8	Government Salt Depot	Tank.
8	10	M. R. Jambunathan	Pits.
9	11	Chenchiah Naidu	Tank.
10	11	V. Rajarathnam Chetty	,,
11	11	Corporation of Madras	Lowland.
12	12	Do.	,,
13	12	Mother Superior Presentation Convent, Vepery	,,
14	12	Mr. Rencontre	Pits.
15	12	C. M. Raju Chetty	Tank.
16	12	Rao Bahadur G. Narayanaswami Chetty	Lowland.
17	12	Corporation of Madras	,,
18	12	Sir W. A. Beardsell Esq.	Tank.
19	13	Corporation of Madras	Plain.
20	14	Dewan Bahadur Alwar Chetty	Tank.
21	14	T. R. Rangachariar	,,
22	15	H. M. Dwane Esq.	Lowland.
23	15	H. Mohamed Abdul Azeez Batcha Saib	,,
24	17	Venkataramanujam Chetty	Tank.
25	18	Bashiam Naidu	Lowland.
26	18	Corporation of Madras	,,
27	19	C. Ramasawmi Aiyengar	,,
28	19	Dr. A. Krishnasawmi Aiyer	,,
29	19	Gurusāmi Gramany	,,
30	19	Corporation of Madras	,,
31	20	Do.	,,
32	20	Government	Pits.
33	20	Corporation of Madras	Lowland.
34	20	Do.	,,

Statement showing the details of expenditure under various headings for the year 1919.

Months.	Establishment. Investigation Prevention Treatment & Lory staff.	Establishment. Anti-malarial Drainage Works.	Amount spent for filling, cost of petrol, repairing charges to lories for Anti malarial reclamation works.	Oiling, Cleaning, fishermen bush-cutting & purchase of liquid fuel.	Stationery Printing & Laboratory Equipments.	Contingencies rent of buildings, etc.	Law Charges.	Total.	Expenditure in 1918.
1	2	3	4	5	6	7	8	9	10
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
January ...	1,305 0 0	981 12 6	928 0 0	930 2 9	... ...	824 1 1	... ...	4,969 0 4	4,192 10 7
February ...	1,195 9 0	1,396 2 3	1,206 7 0	924 14 11	... ...	60 2 2	... ...	4,783 3 4	7,959 12 3
March ...	1,142 8 1	1,597 14 6	845 0 0	944 13 8	... ...	2,124 12 10	... ...	6,655 1 1	11,537 10 6
April ...	1,368 9 7	1,235 7 0	495 4 0	943 0 3	... ...	167 2 0	... ...	4,209 6 10	3,638 9 3
May ...	1,236 4 10	920 2 4	402 12 3	832 10 1	100 9 0	40 8 0	... ...	3,532 14 6	6,013 4 2
June ...	1,236 6 9	832 8 1	702 8 10	706 8 1	... ...	118 6 0	... ...	3,596 5 9	4,166 0 11
July ...	1,396 9 1	1,491 10 3	473 3 2	920 14 5	... ...	35 0 0	69 11 0	4,386 15 11	8,913 10 4
August ...	1,063 0 0	1,537 14 11	269 9 3	883 14 0	... ...	382 12 3	... ...	4,137 2 5	5,067 9 7
September ...	1,391 4 2	2,464 11 2	410 10 0	949 13 3	270 1 2	857 8 4	... ...	6,344 0 1	7,316 5 11
October ...	1,421 10 10	1,010 15 9	260 5 10	930 0 6	... ...	121 10 0	16 13 0	3,761 7 11	5,855 8 0
November ...	1,178 14 4	802 13 11	269 2 6	899 9 10	... ...	14 10 5	0 2 0	3,165 5 0	6,295 7 7
December ...	1,186 3 9	633 5 6	262 9 7	908 12 9	... ...	2,884 4 0	... ...	5,875 3 7	3,950 15 5
Total ...	15,122 0 5	14,905 6 2	6,525 8 5	10,775 2 6	370 10 2	7,630 13 1	86 10 0	55,416 2 9	74,907 8 6

S. Murthy & Co., Madras.

CORPORATION OF MADRAS



(RIPON BUILDINGS)

ADMINISTRATION REPORT

FOR

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